

UNIVERSITY OF CAPE COAST

WORKING CAPITAL MANAGEMENT PRACTICES AND FINANCIAL
PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES (SME) IN
ASHANTI REGION

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature Date

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Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation was supervised in accordance with the guidelines on supervision of dissertation laid by the University of Cape Coast.

Supervisor's Signature Date

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ABSTRACT

Working capital management is a very sensitive area in the field of financial management. The working capital management of a firm in part affects its profitability. A firm is required to maintain a balance between liquidity and profitability while conducting its daily operations. The aim of this study is to investigate the effect of working capital management practices on financial performance of Small and Micro Enterprise in Sokoban Wood Village in Ashanti region. This objective was accomplished through establishing the effect of inventory, receivables and payables and cash management practice on the financial performance. Cross-sectional survey was adopted where quantitative data was collected from a paper-based questionnaire. A stratified random sampling technique was used to sample one hundred and fifteen owners of SMEs in Sokoban Wood village. Data was analyzed using descriptive statistics such as frequency distribution, percentages, means and standard deviation. Multiple regressions were used to test the main hypothesis of this study. It was found that various inventories are kept by different SMEs in Sokoban Wood Village but majority of them keep finished goods, and have a system in place which they use for stock counting. The study established that there was a statistical significant relationship between all the factors: inventory, accounts receivables and payables, and cash management practices and firm's profitability. As inventory, accounts receivables and payables, and cash management practices values increase profitability also increases in value.

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DEDICATION

To my Parents, Husband, Mr. Emmanuel Gyasi, children; Trudy Gyasi, Roland Gyasi, Emmanuel Gyasi (Jnr), Kwaku Gyasi and siblings.

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LIST OF ACRONYMS

SMEs	Small and Medium Enterprises
MSMEs	Micro Small and Medium Enterprises
EPS	Earning Per Share
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROCE	Return on Capital Employed
GPS	Gross Profit to Sales
NPM	Net Profit Margin
DPS	Dividend per Share
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
NBSSI	National Board for Small Scale Industries
GSS	Ghana Statistical Service
EOQ	Economic Order Quantity
NPV	Net Present Value
CCC	Cash Conversion Cycle
ROS	Return on Sales
IA	Income to total Assets
IS	Income to Sales
FATA	Financial Asset to Total Asset
DR	Debt Ratio
LOS	Natural Logarithm of Sales
SPSS	Statistical Product and Service Solution
US	United States

CHAPTER ONE

INTRODUCTION

Background to the Study

Working capital management is a very sensitive area in the field of financial management (Nazri & Afaz, 2008). The working capital management of a firm in part affects its profitability. A firm is required to maintain a balance between liquidity and profitability while conducting its daily operations. Liquidity is a pre-condition to ensure that firms are able to meet their short-term objectives and their continued flow can be guaranteed from a profitable venture (Padachi, 2006).

One of the objectives of any firm is to maximize owners worth. Nevertheless, preserving liquidity of the firm is an important objective too. The problem is that increasing profit at the cost of liquidity can bring serious problems to the firm. Therefore, there must be tradeoff between these two objectives of liquidity and profitability of the firm. For this reason, working capital management should be given proper consideration because it ultimately affects the profitability of the firm (Kwame, 2007).

Small and micro enterprises are viewed as an essential element of a healthy and vibrant economy. They are seen as vital to the promotion of an enterprise culture and to the creation of jobs within the economy (Bolton Report, 1971). Small and medium-sized enterprises (SMEs) are believed to provide an impetus to the economic progress of developing countries and their importance is gaining widespread recognition. Equally in Mauritius the SMEs occupy a central place in the economy, accounting for 90% of business stock

(those employing up to 50 employees) and employing approximately 25% of private sector employees (Wignaraja & O'Neil, 1999).

However, given their reliance on short-term funds, it has long been recognized that the efficient management of working capital is crucial for the survival and growth of small firms (Grablowsky, 1984). A large number of business failures have been attributed to inability of financial managers to plan and control properly the current assets and current liabilities of their respective firms (Smith, 1973).

Working capital management is of particular importance to the small and medium-sized enterprise. With limited access to the long-term capital markets, these firms tend to rely more heavily on owner financing, trade credit and short-term bank loans to finance their needed investment in cash, accounts receivable and inventory (Chittenden & Poutziours, 1998). However, the failure rate among small and medium-sized enterprise is very high compared to that of large businesses. Studies in the UK and the US have shown that weak financial management - particularly poor working capital management and inadequate long-term financing - is a primary cause of failure among small and medium-sized enterprise (Dunn & Cheatham, 1993).

In most developing countries, new employment opportunities are created by the small-scale businesses. Therefore, governments throughout the world attempt to promote economic progress by focusing on small-scale enterprises.

The relationship between working capital management and financial performance may be seen through the liquidity-profitability trade-off theory. This theory proposes that there is a trade-off between liquidity and

profitability; gaining more of one means giving up some of the other. At one end of the spectrum there are highly liquid firms which are not very profitable while at the other end are firms which are highly profitable but are not very liquid. The basic challenge is therefore to determine where in the middle ground the firm should reside (Bhattacharya, 2001).

The theory of working capital management describes how working capital should be managed and demonstrates the benefits in terms of liquidity, solvency, efficiency, profitability, and shareholder wealth maximization which accrue to the company from appropriately managing working capital. Declining levels of liquidity, unless remedied, may result in insolvency and eventually bankruptcy as the business's liabilities exceed its assets (Brigham, Gapenski & Ehrhardt, 2009).

Statement of the Problem

Every business needs some amounts of working capital. The need for working capital arises due to the time lag between production and realization of cash from sales. Small and medium-scale enterprises face a number of challenges. The most pronounced being how to get funds for their establishment and to carry out their day- to-day operations. The working capital management of small and micro enterprise in developing countries and in particular, Ghana is still lagging seriously behind in the world global market ranking, where Ghana curiously occupies the 114th and 53rd position in Africa (Bank of Ghana, 2010). This is supported by Peel and Wilson (1996) who emphasizes that management of working capital is important to the financial health of businesses of all sizes. Since the amounts invested in working capital are often high in proportion to the total assets employed, it is

vital that these amounts are used in an efficient and effective way. Deloof (2003) acknowledges that smaller firms should adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. However, there is evidence that small businesses are not very good at managing their working capital. Given that many small businesses suffer from under capitalization, the importance of exerting tight control over working capital investment is difficult to overstate (Peel & Wilson, 1996).

Writing on the importance of working capital, Baker (1991) argued that working capital constitutes a large portion of the firm's total assets. Although the level of working capital varies widely among different industries, firms in manufacturing and retailing often keep more than half of their total assets as current assets. In the case of SMEs many of whom have no long-term assets such as building and vehicles of their own, the percentage is even higher since the business' current assets are held in inventory, accounts receivable and bank and cash balance. Working capital management directly affects the firms' long-term growth and survival. This is due to the fact that higher levels of working capital are needed to support sales growth or production.

Notwithstanding, research on the topic working capital management of small and medium-sized enterprises in Ghana specifically Ashanti region is very scanty. Although, the problem of finance and for that matter working capital has been identified as one of major constraints to growth of small businesses, most of the prior studies do not provide the specific issues or details of the challenges confronting entrepreneurs in the management of

working capital. Most of research works on working capital have been based on larger firms. The begging question that remains unresolved is “how do working capital management practices affect the financial performance of small and medium-sized enterprises in Ghana”? This study therefore sought to investigate the effect of working capital management practices on the financial performance of small and medium-sized enterprises in Ashanti Region of Ghana.

Purpose of Study

The purpose of this study is to investigate the effect of working capital management practices on financial performance of small and medium-sized enterprise in Sokoban Wood Village in Ashanti region.

Objectives of the Study

The specific objectives of the study were to:

1. Establish the effect of inventory management practice on the financial performance of small and medium-sized enterprise in Ashanti region.
2. Establish the effect of receivables and payables management practice on the financial performance of small and medium-sized enterprise in Ashanti region.
3. Determine the effect of cash management practice on the financial performance of small and medium-sized enterprise in Ashanti region.

Research Questions

- 1) What is the effect of inventory practice on the financial performance of small and medium-sized enterprise in Ashanti Region?
- 2) What is the effect of accounts receivables practice on the financial performance of small and medium-sized enterprise in Ashanti region?

- 3) What is the effect of cash management practices and payables management practice on the financial performance of small and medium-sized enterprise in Ashanti region?

Hypothesis of the Study

The study would test the following hypothesis.

H0₁: There is no statistical significant relationship between inventory management practices and the financial performance of small and medium-sized enterprise in Sokoban Wood Village, Ashanti region of Ghana.

H0₂: There is no statistical significant relationship between account receivables and payables practices and the financial performance of small and medium-sized enterprises in Sokoban Wood Village, Ashanti region of Ghana.

H0₃: There is no statistical significant relationship between cash management practices and the financial performances of small and medium-sized enterprises in Sokoban Wood Village, Ashanti region of Ghana.

Significance of the Study

Working capital management is a very important component of corporate finance because it directly affects the liquidity and profitability of the company. It deals with current assets and current liabilities. Working capital management is important due to many reasons.

The ultimate objective of any firm is to maximize the profit. But, preserving liquidity of the firm is an important objective. Therefore, the findings and analysis of this study would be relevant to the government of Ghana, particularly to NBSSI in adopting measures to improve the operation

of all SMEs in Ghana including wood sellers and wood processors at the Sokoban village of Ashanti region.

The formal financial sector in Ghana comprises commercial banks (including Merchant Banks and Development Banks), 17 of which operate a network of 303 branches in the country; 115 rural and community banks, savings and loan companies and non-bank financial institutions. Recently, as banks and other financial institutions have sought to broaden their loan portfolio, SMEs have been left out. (Mensah, 2004). Through this study carpenters and those who deal with wood in Sokoban wood village will know the various opportunities for them to meet their financing needs.

The study might also benefit stakeholders of Micro Small and Medium Enterprises (MSMEs). These include Non Governmental Organisations (NGO), bilateral organizations and consultants. For example, the study might be good bases for consultants in their training programmes. This is because the outcome of the study may help them in designing training programmes for MSMEs. It may help organizations involved in SMEs financing in developing their programmes to meet the financing needs of the SMEs in general and those in Ghana in particular.

The SMEs might also benefit from this study. This is because the outcome of the study would show how working capital management practices impact on financial performance of SMEs. This would help the managers and owners to know how important it is for them to manage their working capital in order to boost their financial performance.

Most importantly, this paper will help financial institutions and the wood sellers and wood processors in Sokoban village themselves would

benefit from this study in the granting and assessment of loan facilities respectively. Equally, researchers, students, agencies and anyone who wants to research into working capital management impact on firms' financial performance and specifically on small and medium - sized enterprise in Ghana would benefit in one way or the other from this study.

Scope of the Study

The study covers micro and small-scale enterprises at Sokoban, a town in the Bosomtwe Atwima Kwanwoma District of Ashanti Region. These businesses are into wood carvings in the manufacturing sector. The official definition of SMEs in Ghana is available in the 2004 Venture Capital Trust Fund Act, the National Board for Small Scale Industries (NBSSI) and Ghana Statistical Service (GSS), but for statutory financial reporting purpose, the legal form of business is used as the main criterion to specify the extent of financial reporting obligation.

The study assesses the effect of working capital management on the firm's profitability in Sokoban wood village in Ashanti Region of Ghana. Only the firms in the database of the Ghana Statistical Services in Kumasi Metropolis are included in the study. The term "small and medium enterprises (SMEs)" used in this study refers to firms which employs less than 100 employees.

Organization of the Study

This research report is organized into five generic chapters. Chapter one focuses on the introduction to the research background to the study, statement of the problem, objectives, research questions, and hypotheses, scope of the study and organization of the study. Chapter two reviews the

literature related to the study. A conceptual framework is developed from the literature review. Chapter three focuses on the methodology of the study. Issues covered are research philosophy, research design, study area, target population, sampling technique, sample size determination, research instrument, validity and reliability tests, data collection procedure and data analysis. The chapter ends with ethical issues relating to the study. Chapter four presents the research results and discussion. The Chapter presents the major findings of the study, and discussions of the findings. The study ends with Chapter five which consists of summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents a review of literature related to working capital management and financial performance by SMEs. It begins with an overview of the concept of financial performance followed by the theories of working capital management that underpin financial performance by SMEs. The chapter continues with a summary of literature reviewed on working capital management and how the current study fills a knowledge gap. A theoretical framework is developed from these variables that affect financial performance.

Theoretical Review

Financial Performance

A company's financial performance is an essential measure to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization related to its authority and responsibility, not against the law, and conforming to the morale and ethic. Such performance is the function of the ability of an organization to gain and manage the economic resources in several different ways to develop competitive advantage (Hansen & Mowen, 2005). Naser and Mokhtar (2004) contend that high financial performance reflects management effectiveness and efficiency in making use of company's resources, and is often expressed in terms of growth of sales, turnover, employment, or stock prices.

According to Dong (2010), the firms' financial performance is affected by working capital management practices. Based on empirical findings, Chatterjee (2010) defends the importance of fixed and current assets in the

successful running of any organization. He recognizes a common phenomenon observed in the business cycle that most of the business entities increase their margin for the profits and losses because of shrinking of the size of working capital relative to sales. Effectively, if the entity wants to increase or improve its liquidity, then it has to increase its working capital. In response of this policy, the organization has to lower down its sales and hence the profitability will be affected due to this action (Chatterjee, 2010).

In the SME segment, financial performance forms an important part of the business and it is crucial for their survival. Successful financial performance in the SMEs has a positive association with the capacity to manage financial issues effectively (Thachappilly, 2011).

Measuring financial performance

Economic performance of a firm is ultimately reflected in corporate profits (Freedman & Jaggi 1992). Financial performance of a firm can be measured using accounting based or stock market-based measures. Accounting based measure reflects past performance of the firm whereas stock market-based measure reflects future expectations of the shareholders (Peloza, 2009). McGuire, Sundgren and Schneeweis (1988) discussed weakness in both methods and have assessed firm performance using both methods.

Most researchers have used earnings per share [EPS], return on assets [ROA], return on equity [ROE], return on investment [ROI], return on capital employed [ROCE], gross profit to sales [GPS], net profit margin [NPM], dividend per share [DPS], earnings before interest, tax, depreciation and amortization [EBITDA], total assets, sales growth, asset growth, and operating

income growth as a measure of profitability (Makori & Jagongo 2013; Oeyono et al. 2011; Skouloudis et al. 2014).

Definition of Small and Medium Enterprises (SMEs)

Searching for a definition of SMEs can be frustrating as there are as many definitions as there are authors on the subject. Over the years there have been many attempts at defining what constitute small and medium-sized enterprises. Researchers and policy makers have used a variety of criteria including total worth, relative size within industry, number of employees value of products, annual sales or receipts, and net worth (Cochran, 1981). However, the benchmarks vary considerably.

The definition of small and medium enterprises therefore varies from country to country. The classification can be based on firm's assets, number of employees, or annual sales. In Ghana, the National Board for Small Scale Industries (NBSSI) defines SMEs as an enterprise which employs not more than 29 workers with an investment (excluding land, building and vehicles) not exceeding 10 million Ghana Cedis.

The United Nations Industrial Developmental Organization (UNIDO) also uses number of employees to define SMEs by giving different classifications for industrialized and developing countries (Elaian, 1996). The definitions for industrialized countries are given as follows: large – firms with 500 or more workers; medium- firms with 100-499 workers and small firms with 99 or less workers. The classifications given for developing countries are as follows: large firms with 100 or more workers; medium- firms with 20-99 workers; small- firms with 5-19 workers and micro firms with less than 5 workers.

Pobosky (1992) also observe that numerous varieties of criteria can be applied in defining SMEs which include the size of the work force (employees) or capital, forms of management or ownership, production techniques, volume of sales, number of clients, level of energy consumption and others. An alternative criterion used in defining SME's is the value of fixed assets in the organisation. However, the National Board for Small Scale Industries (NBSSI) (1985) in Ghana applies the fixed assets and number of employee's criteria in defining SMEs. It defines small and medium scale as one with not more than 9 workers and has plant and machinery (excluding land, building and vehicles) not exceeding 10 million Ghana Cedis. Research ICT Africa (RIA) in a survey published in May 2007, defines small and medium enterprises (SMEs) as an enterprise having less than 50 employees as recommended by the African Development Bank.

In Australia, the Wiltshire Committee (1971) defines SMEs as a business in which one or two persons are required to make all the critical management decisions: finance, accounting, personnel, purchasing, processing or service, marketing, selling, without the aid of internal specialist and with specific knowledge in only one or two functional areas. The 1985 UK Companies Act defines small company in respect of financial disclosure as companies employing 50 or less employees.

In addition, small scale enterprises are those enterprises employing between 6 and 29 workers including \$100,000 excluding land and buildings. Moreover, medium enterprises are those enterprises employing between 30 to 100 workers and with the fixed assets of value not exceeding \$1,000,000.

Whatever the definition and regardless of the size of the economy, the growth of the SMEs throughout the country is crucial to its economic growth.

It can be concluded that small and medium-sized entities (SMEs) have different definitions. As a result, an operational definition is important for the study. It should be noted that the most commonly used criterion is the number of employees of the enterprise as identified from the various definitions above. The idea behind this employee base principle (without cognizance with value of fixed assets and others) is due to the fact that firms can easily be identified by their number of employees and in part because the process of valuing fixed assets, will pose a problem since mode of accounting system used by one enterprise will vary from one to the other. Moreover, continuous depreciation in the exchange rate often makes such definitions with the value of fixed assets principle obsolete. For the purposes of this study, the operational definition of SMEs by the Ghana Statistical Service (GSS) and NBSSI is adopted. By their definition, SMEs is defined as those economic activities, industries or entities that employ not more than 100 persons.

Characteristics of SMEs in Ghana

SMEs in Ghana exhibit a lot of characteristics. In their study, Fisher and Reuber (2000) listed labour characteristics, sectors of activities, gender of owner and measures of efficiency as the major characteristics of SMEs in developing countries. Various research studies in Ghana have produced various features of SMEs. The Ghana Statistical Service, in its IBES report in 2015, also showed that non-household establishments exhibit a lot of characteristics. Some of the characteristics of SMEs in Ghana include the size

of the organization, legal form of the organisation, sector of activity, measures of efficiency, age of the firm; and these are discussed below:

Size of the Organisation

SMEs in Ghana are primarily characterized into size as micro, small and medium enterprises. This mode of classification is normally based on a number of criteria such as number of employees, turnover, fixed asset size and so on. It has been established from findings from empirical studies that small enterprises form the largest proportion of SMEs followed by medium enterprises (Abor & Biekpe, 2006; Amoako, Marfo, Gyabaah & Gyamfi, 2014). In its IBES report, however, the GSS (2015) ranked the micro-enterprises as the largest establishments in Ghana (80%), followed by the small-sized enterprises (18%) and medium-sized entities (1.5%). The implication of the study is that which size of the organization forms the largest proportion of SMEs in Ghana may depend upon the time or location.

According to the Survey (2015), concentration of establishments were mostly found in Greater Accra and Ashanti regions. Patterns of distribution of establishments across regions was similar across the three size categories. Almost a third of the micro sized establishments were in Greater Accra.

Legal form of the Organisation

Business organizations take many forms. Common among the form of SMEs in Ghana include sole proprietorship, partnership, limited liability companies. Other legal business forms include joint ventures and family owned businesses. Various studies in Ghana indicated that sole proprietorship dominates the SMEs with most being retail shops followed by partnership and lastly limited liability company, both of which were manufacturing firms

(Amoako, Marfo, Gyabaah & Gyamfi, 2014). The Ghana Statistical Service's IBES report conducted in 2015 agreed with the empirical studies that sole proprietorship forms the largest portion of the establishments (78%), followed by partnerships (8%) and limited liability companies (4.9%).

Sector of activity

In terms of sectors of activity, SMEs are mostly engaged in manufacturing, retailing, trading, agriculture and general services (Ackah & Vuvor, 2011; Amoako, Marfo, Gyabaah & Gyamfi, 2014). Retailing, general services and trading are mostly found in urban regions, manufacturing activities can be found in either rural or urban centres whilst agriculture activities usually take place in rural areas. Studies from research show that the retail sector and trading form the largest portion of the SMEs in Ghana, followed by manufacturing sector (Ackah & Vuvor, 2011; Adjei, Oteng & Fianu, 2014).

The Ghana Statistical Service IBES report, however, showed that the largest establishment in Ghana in terms of number and sectoral distribution was services sector. According to the Survey (2015), about eight out of every ten establishments are in the services sector (82.6%). Close to one-fifth of the establishments are in the industry sector (17%) whilst less than one per cent of the establishments (0.4%) constitute the institutional agriculture sector.

Age of the firm

The age of the firm is defined on the basis of date of establishment up to a defined date. There are no established criteria to define age of firms. Circumstances define and determine what is acceptable as age of the firm. In their study, SMEs' access to debt finance: A comparison of male-owned and

female-owned businesses in Ghana, Abor and Biekpe (2006) divided SMEs in Ghana and concluded that firms which had been in business for less than one year were labelled as 'infant', those between one and five years were classified as 'young', those between six and ten years were classified as 'adult' whilst those with over 10 years were labeled as 'mature'. According to GSS (2015), about two-thirds of the establishments in Ghana (67%) were relatively young and only one out of twenty establishments (5%) is at least 40 years old. Establishments in the industrial sector are relatively young while those in the services and agriculture sectors are relatively old (GSS, 2015).

The age of firms greatly influence the extent to which firms prepare and publish financial statements. Firms which are classified as 'adults' and 'mature' tend to prepare complete financial statements than those labelled as 'infant' and 'young' (Ploybut, 2012).

The Concept of Working Capital Management

Working capital management is the management of the net of current assets and current liabilities (Gill, Biger & Mathur, 2010; Olawale, 2012) with the objective of reaching the right balance between profitability and liquidity (Alshubiri, 2011). The objective of working capital management is to maintain the level of net capital that maximizes the wealth of the firm owner. Working capital management ensures that a firm has sufficient cash flow in order to meet its short-term debt obligations and operating expenses (Olawale, 2012). When any company manages its working capital well, it has every leverage opportunity to continue in business indefinitely both in profitability and in liquidity (Alshubiri, 2011). When SMEs practice proper working capital management, it enhances their profitability. It therefore enhances their ability

to access external finance as it sends a signal to fund providers that such firms are properly managed and, in a position, to make good any future obligations that fall due (Atrill, 2006).

Management of working capital is a fundamental part of the overall corporate strategy to create value and is an important source of competitive advantage in businesses (Deloof, 2003). In practice, it has become one of the most important issues in organizations with many financial executives struggling to identify the basic working capital drivers and the appropriate level of working capital to hold so as to minimize risk, effectively prepare for uncertainty, and improve the overall performance of their businesses (Lamberson, 1995).

In this study, two cash management models have been discussed: Baumol model and Miller-Orr model.

Baumol Model

This cash management model which is an economic model of the transactions demand for money was propounded independently by Baumol (1952). Baumol suggested that cash may be managed in the same way as any other inventory and that the inventory model could reasonably reflect the cost-volume relationships as well as the cash flows. The Baumol model assumes that cash payments are evenly spread over time, and are a constant amount each period. In reality, this is unlikely to happen. There will be much more uncertainty over the timing of cash payments and receipts. In this way, the economic order quantity (EOQ) model of inventory management could be applied to cash management. The rank of securities will make the most of interest arriving from saleable securities while lessening the rate of

exchanging marketable securities. Nevertheless, indicated by Whalen (2004) the model has its shortcomings in that it does not make a difference, all things considered, following the utilization and receipt of cash cannot be portrayed through quick recharging and slow utilization of cash.

In the model, the carrying cost of holding cash—namely the interest forgone on marketable securities—is balanced against the fixed cost of transferring marketable securities to cash, or vice-versa. The Baumol model finds a correct balance by combining holding cost and transaction cost, so as to minimize the total cost of holding cash. The optimum level of cash balance is found to be:

$$C = \sqrt{\frac{2AT}{I}}$$

Where,

C = Optimum level of cash balance

A = Annual cash payments estimated

T = Cost per transaction of purchase or sale of marketable securities

I = Interest on marketable securities, per annum

According to the model, optimum cash level is that level of cash where the carrying costs and transaction costs are the minimum.

Miller-Orr Model

A further cash management model recommended by Miller and Orr (1966) is the Miller-Orr model, which is a stochastic model that goes for deciding the measure of attractive securities to be sold or bought at whatever point there is requirement for cash. Miller and Orr (1966) assume that the cashflow of the firm is assumed to be stochastic, i.e. different amount of cash

payments are made on different points of time. It is assumed that the movements in cash balance occur randomly.

A stochastic model is a model based on genuine suspicion that cash utilization is irregular life. The model shows that the firm sells attractive securities when a lower farthest point of cash is come to. Saleable securities are acquired when the furthest reaches of cash come to as it gets to be important to decrease cash. At the point when there is no endeavour to oversee cash balances unmistakably the cash offset is prone to “wander” upwards or downwards (Tobin, 2006). The Miller–Orr Model forces cut-offs points to this winding. If the cash balances get to a higher edge the firm buys adequate securities for the cash balance to return to a normal level (called the return point). Whalen (2004) states that the cash balances reaches a lower limit, the firm sells securities to get the balance back to the return point.

Miller-Orr cash management model is a mathematical model which not only helps companies to find out the optimal target cash balance but it also helps to find out the maximum level of cash reserves (Burns & Walker, 1991).

The model requires the transfer of money into or out of the account to return the balance to a predetermined ‘normal point’ whenever the actual balance went outside a lower or upper limit. The lower limit would be set by management, and the upper limit and return points by way of formulae which assume that cash inflows and outflows are random, their dispersion usually being assumed to repeat a pattern exhibited in the past. The model specifies the following two control limits:

H = upper control limit, beyond the cash balance should not be carried.

O = lower control limit, sets the lower limit of cash balance.

Z = return point for cash balance

The model can be used in times of uncertainty and random cash flows. It is based on the principle that control limits can be set which when reached trigger off a transaction. The Miller-Orr model formula for the size of the spread is as follows:

$$\text{Spread} = 3 \times \left(\frac{\frac{3}{4} \times \text{transaction cost} \times \text{variance of cash flows}}{\text{interest rate as a proportion}} \right)^{\frac{1}{3}}$$

The higher the variability in cash flows and transaction cost, the wider and higher the control limits will be. Conversely, the higher the interest rate, the lower and closer they will become. Within the control limits, the cash balance fluctuates unpredictably. When it hits an upper or lower limit, action is taken by buying or selling securities to restore the balance to its normal level within the control points.

Empirical Literature Review

This section reviews the work of other existing evidences or researches pertaining to the research objectives under this study. The review will serve as the basis upon which findings of the current study will be based for interpretations.

Prior researchers have approached working capital management (WCM) in numerous ways (Shin & Soenen, 1998; Lazaridis & Tryfonidis, 2006; Deloof, 2003; Ganesan, 2007; Raheman & Nasr, 2007; Smith & Begermann, 1997; Eljelly, 2004).

Shin and Soenen (1998) investigated American companies during the period between 1975 and 1994 totalling 59,985 observations. The variables used were profitability, measured by return on assets (ROA) and return on

sales (ROS), and Cash Conversion Cycle (CCC). Their research found strong evidence of a negative relation between profitability and CCC meaning that the shorter the days of working capital, the higher the profitability. Their findings also indicate a positive impact in the shareholder's value.

Lazaridis and Tryfonidis (2006) investigated the relationship that is statistically significant between corporate profitability, the (CCC) and its components. They used a sample of 131 companies listed in the Athens Stock Exchange for the period of 2001-2004. The independent variables used were fixed financial assets, the natural logarithm of sales, financial debt ratio, (CCC) and its components – days inventory, days receivable and days payable. The dependent variable is profitability measured by gross operating profit. The research findings show negative relationship between cash conversion cycle, financial debt and profitability, while fixed financial assets have a positive coefficient. When the authors replaced (CCC) with accounts receivable and inventory, they found negative relationship with these two variables; the opposite occurred with accounts payable. The authors conclude that companies can create more profit by handling correctly the (CCC) and keeping each different component to an optimum level. Similar results were also shown in Deloof (2003) research with Belgian companies from 1992 to 1996. He found negative relationship between gross operating profit and accounts receivable, inventory and accounts payable. The latter might indicate that less profitable companies wait longer to pay their bills taking advantage of credit period granted by their suppliers.

In Christopher and Kamalavalli (2009) study, they investigated a sample of 14 corporate hospitals in India using panel data analysis for the

period 96/97 to 2005/06. The independent variables used were current ratio, quick ratio, inventory turnover ratio, working capital turnover ratio, debtor's turnover ratio, ratio of current asset to total asset, ratio of current asset to operating income, comprehensive liquidity index, net liquid balance size, leverage and growth. The dependent variable profitability is measured in terms of ROI. From multiple regression analysis, negative association with ROI can be seen in current ratio, cash turnover ratio, current asset to operating income and leverage. On the other hand, positive association with ROI are in quick ratio, debtor's turnover ratio, current asset to total asset and growth rate. Conclusion is that hospitals should concentrate more on efficient use of working capital for increasing the profitability which would increase the value of hospitals.

The relation between profitability and liquidity (as measured by current ratio and cash conversion cycle) was also investigated by Eljelly (2004) in listed companies in Saudi Arabia. Although both indicators showed negative relationship with profitability, the cash conversion cycle proved to be more important than current ratio as a measure of liquidity that affects profitability.

The above studies present some differences and similarities. The term profitability is measured in different ways by the authors. It can be measured as being gross operating profit, net operating profit, return on investment, income to total asset (IA) and income to sales (IS). Although the majority of authors found evidence that cash conversion cycle have negative relationship with profitability, for Ganesan (2007) it has no association to IA. He also indicates that working capital variables do not have much impact on both IA

and IS. For Deloof (2003) these variables present negative relationship, while for Lazaridis and Tryfonidis (2006) accounts payable has positive relationship.

Components of Working Capital

By definition, working capital is current assets less current liabilities. According to Atrill (2006), working capital represents a net investment in short term assets. These assets are continually flowing or circulating into and out of the business and are essential for day-to-day operations. Van Horne (1995) argue that the various elements of working capital are interrelated, and can be seen as part of a cycle called the cash conversion cycle. The working capital management practices adopted by a firm determine the length of time a particular element of working capital takes in the cycle.

According to Ferreira and Vilela (2004), current assets are the assets which have a life shorter than one year. The management of these components is very important because poor management of current assets can make it difficult to meet current liabilities. Ferreira and Vilela, (2004), further defined current liabilities as the obligations with a maturity date less than one year. It is very important component of balance sheet which needs to be managed carefully (Ozkan & Ozkan 2004).

The major elements of current assets are inventories, accounts receivables and cash (in hand and at bank) while that of current liabilities are accounts payable and bank overdrafts.

Account receivables

All the businesses have either products or services to sell to the customers, they also want to maximize their sales so, in order to increase the level of their sales they use different policies to attract customers and one of

them is offering a trade credit (Berger, et al., 2001). It means a company sells its product now to receive the payment at specify date in the future. Hill and Sartoris (1995) found that one sixth of total assets for manufacturing corporations consist of account receivables and because of its huge proportion in the total assets, it can become a problem for the organization in a way that it requires more financing for the period for which payment is due from the customers. Account receivables also have opportunity cost associated with them because company cannot invest this money elsewhere until and unless it collects its receivables (Ozkan & Ozkan 2004). More account receivables can raise the profit by increasing the sale but it is also possible that because of high opportunity cost of invested money in account receivables and bad debts the effect of this change might turn difficult to realize. On the other hand, if a company adopts a policy to have a low level of account receivables then it can reduce the profitability by reducing the sales but it can contribute to the profit by reducing the risk of bad debts and by reducing investment in the receivables (Burns & Walker, 1991)

Companies want to have a level of account receivables which maximizes the profitability. The level of account receivables is largely influenced by the credit policy offered by the company to creditors (Opler et al., 1999). Strict policy will reduce the collection period and account receivables and if company offers relaxed credit policy it will raise the level of account receivables (Kim et al., 1998).

Inventory

Deloof (2003) contends that inventory is an important component of current assets. According to Kim et al., (1998), inventory comprises raw

material, finished goods and work in process. It is not necessary for a firm to hold high level of raw material inventory, in fact a firm can order raw material on the daily basis but the high ordering cost is associated with such a policy. Moreover, the delay in supply might stop the production (Osisioma, 1997). Similarly, firm can reduce its finished goods inventory by reducing the production and by producing the goods only to meet the current demand but such a strategy can also create trouble for the company if the demand for the product rises suddenly (Osisioma, 1997). Such a situation might cause the customer dissatisfaction and even a loyal customer can switch to the competitor's brand. Therefore, the firm should have enough inventories to meet the unexpected rise in demand but the cost of holding this inventory should not exceed its benefit (Brealey, Myers & Allen, 2006).

Companies want to keep the inventory at a level which maximizes the profit and this level is known as optimal level, but what is an optimal level of inventory for a company? In order to answer this question finance managers analyze the cost associated with inventory i.e. carrying cost and ordering cost. Shleifer and Vishny (1992) defines carrying cost as involving insurance, warehouse expenses, utility bills, security expenses etc. in short carrying cost involves all the expenses which a firm have to bear for on hand inventory. Fazzari and Petersen, (1993) defined ordering cost as a cost that is associated with one order. It includes telephone expenses, management time, and clerical expenses etc. ordering cost is a fixed cost and its effect can be reduced by ordering a big lot but big lot will increase the carrying cost. On the other hand, if a finance manager saves the carrying cost by ordering twice or thrice rather than one big lot then ordering cost will increase. In both cases profitability is

directly affected. So, in order to find an optimal level manager, have to find a balance between cost and benefit associated with different inventory levels (Titman & Wessel, 1988). Economic order quantity provides the balance between carrying cost and ordering cost and helps finance manager to find out the quantity of ordering lot by considering the ordering cost, carrying cost and annual usage (Burns & Walker, 1991).

Gitman (2002) contents that the optimal inventory level or change in the current policy about the inventory is decided by the management in three step procedures. The level which gives the higher net present value is selected as an optimal level of inventory (Burns & Walker, 1991).

Short-term investments

John (1993) states that, short term investments are the investments in the money markets and it includes short term securities such as treasury bills, commercial papers, and so on. Whenever a firm needs some cash more than its cash reserves it produces cash by liquidating its investments. Investments are treated as primary reserves or secondary reserves for liquidity purposes. Furthermore, investment in the money market is considered as a good utilization of idle cash resource which gives return (Hill & Sartoris, 1995). Finance managers should consider the short-term interest rate, transaction cost and market conditions before making any investment. If the benefit of investment is equal to its cost then it does not worth to invest money (Opler et al., 1999).

Cash

Van Horne (1995) states that cash includes both cash in hand and cash at bank. A company needs cash for transaction and speculation purpose. It

also provides the liquidity to the company but the question is why company should have cash reserves when it has an option to utilize it by investing it in short term securities. The answer to this question is that it provides more liquidity than the marketable securities (Ferreira & Vilela, 2004; Ozkan & Ozkan 2004). Fazzari and Petersen, (1993) asserts that cash should be considered as an inventory which is very important for the smooth running of the business. No doubt a company can earn some interest if cash is invested in some marketable securities but when it has to pay its liabilities it needs cash and in order to convert marketable securities into cash it has to pay some transaction cost. So, there is a fair possibility that cost of holding marketable securities might exceed their benefit (Brealey, Myers & Allen, 2006).

Holding a cash reserve is justifiable for all the businesses but how much cash should a company have? It is a big and very important question because too little cash might push a company in a situation where it will not be able to pay its current liabilities (Rajan & Zingales, 1995). On the other hand, having high cash balance will not produce any return. The minimum level of cash reserve depends on the ability of a company to raise cash when it is required, future cash needs and companies will to keep cash to safeguard future unexpected events (Harris & Raviv, 1990; Shleifer & Vishny, 1992).

Rafuse (1996) states that companies also want to have enough cash reserve to exploit the investment opportunities available in the future but having a very high level of cash reserve can turn out to be an idle resource. The maximum level of cash reserve depends on investment opportunities available in the future, return on these investments and transaction cost of making the investments ((Burns & Walker, 1991). We have discussed the

minimum and maximum cash balance but what is an optimal cash balance which can balance the profitability and liquidity?

Management of a company decides on the minimum balance or lower cash limits by keeping in mind the factors we discussed earlier. According to Miller-Orr (1986), if a company has more cash than target cash balance then it will purchase securities to reduce the level of cash and if it has fewer cash resources than the target cash flow then it will sell the securities. The important thing in this model is that a cash balance should fall within the two prescribed limits.

Accounts payables

Ozkan and Ozkan (2004) describe account payables as the cheapest and simplest way of financing an organization. Account payables are generated when company purchases some products for which payment has to be made no later than a specified date in the future. Account payables are a part of all the businesses and have some advantages associated with it; e.g. it is available to all the companies regardless of the size of the company and earlier payment can bring cash discount with it (Arnold, 2008). Companies not only need to manage their account payables in a good way but they should also have the ability to generate enough cash to pay the mature account payables because if a company fails to generate enough cash to fulfil the mature account payables then such a situation will pass the negative signal to the market and it will directly affect the share price, relationship with creditors and suppliers (Afza & Nazir, 2007). In this situation, it will be difficult for the company to raise more funds by borrowing money or get more supplies from

the suppliers. Such a financial distress will lead to the death of the non-living entity (Brealey & Myers, 2006).

Short-term borrowings

Vishnani and Shah (2007) see short term borrowings as the short-term financing instruments which a company uses and it includes bank overdraft, commercial papers, bill of exchange, and loan from commercial finance companies etc. All these liabilities have a maturity less than one year (Arnold, 2008). One reason for which company should have a proper working capital policy is short term borrowings because a poor working capital policy might cause the cash distress as a result company might not be able to pay its short-term borrowing liability. The consequence of this default can be destructive for a business because after such a situation a company will not be able to win the trust of other financial institutions to borrow more money, market will perceive this situation in a negative way and the value of the share will fall, suppliers and creditors might hesitate to enter in a new contract (Afza & Nazir, 2007)

Working Capital Management Model

According to Hill and Sartoris (1995), the concept of working capital can also be explained through two angles. They are value point of view and timepoint of view.

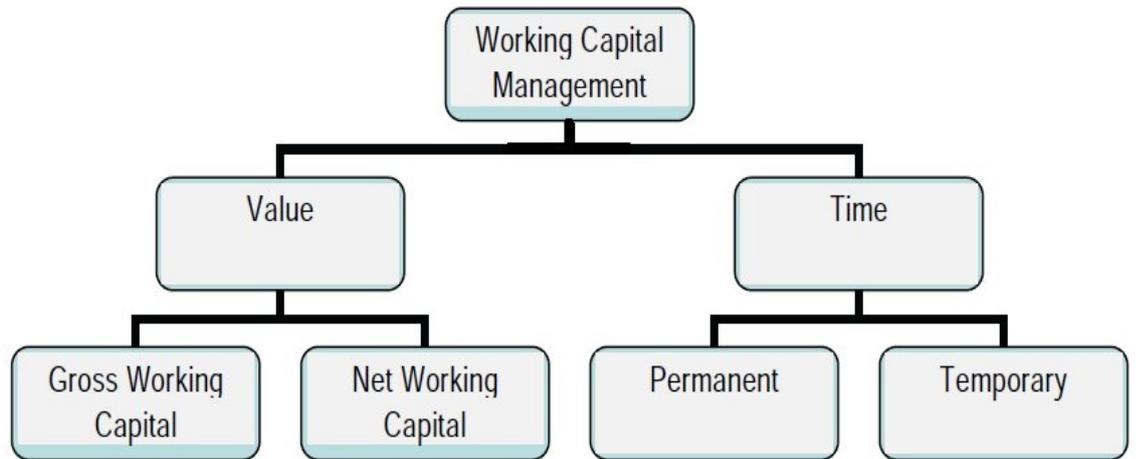


Figure 1: Working Capital Management Model.

Source: The Institute of Chartered Accountants of India (2008)

From the value point of view, working capital can be defined as gross working capital or net working capital. Vishnani and Shah (2007) assert that gross working capital refers to the firm's investment in current assets. Current assets are those assets which can be converted into cash within an accounting year. Teruel and Solano (2007) are of the view that current assets include: stocks of raw materials, work-in-progress, finished goods, trade debtors, prepayments, cash balances etc. Net working capital refers to the difference between current assets and current liabilities. Rehman and Nasr (2007) assert that current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year. Current liabilities include: trade creditors, accruals, taxation payable, bills payables, and outstanding expenses, dividends payable and short-term loans. A positive working capital means that the company is able to pay-off its short-term liabilities. A negative working capital means that the company currently is unable to meet its short-term liabilities (Owusu-Frimpong, 2008).

From the point of view of time, the term working capital can be divided into two categories viz. Permanent and temporary (Myers, 2006). Permanent working capital refers to the hard-core working capital. It is that minimum level of investment in the current assets that is carried by the business at all times to carry out minimum level of its activities. Temporary working capital refers to that part of total working capital, which is required by a business over and above permanent working capital. It is also called variable working capital. Since the volume of temporary working capital keeps on fluctuating from time to time according to the business activities it may be financed from short-term sources (Marfo-Yiadom & Agyei, 2011).

Working Capital Management Practices and Financial Performance

Several working capital management practices are noted to affect financial performance of firms, especially the small and medium-sized enterprises. These may include inventory management practices, account receivables practices, account payable practices, cash management practices, short-term investment practices, short-term financing practices, and so on. In this study, the working capital management practices that are considered to affect financial performance of small and medium-size entities are inventory management practices, cash management practices and account receivable practices.

Inventory management practices and financial performance

Inventory is a major component of working capital. Because of the significant investment a typical business must make in inventory, the proper management of this asset can have a significant effect on the profitability of the firm. Some of the inventory management practices are discussed below:

Nature and type of the inventory

Grawblowsky and Powel (1980) noted that there are several types of inventory which a business can keep depending on the nature of its operations. According to Grawblowsky and Powel (1980), the type of inventory that may be kept in an organization are stock of raw materials, work-in-progress, finished goods and component parts. In a study by Marfo-Yiadom and Agyei (2006), a little over half of the inventory kept (53%) were on finished goods, 32 percent was kept on raw materials whilst 10 percent was kept in components and parts.

System of controlling inventory

According to Sathyamoorthi (2001), control over inventory should be exercised by any business as this is a major area calling for strict control by the proprietor. A small business owner has to be careful in this as inventory can easily be stolen by his employees if there are no controls. The need to keep records on inventory cannot be overemphasized. Pilferage of various items of inventory makes records on inventory important. Regardless of the scale of operation, a good record system on stock will do the business better.

Accounts receivables and payables management practices and financial performance

Some of the account receivable and payable management practices identified to affect financial performances of SMEs are discussed below:

Credit system

According to Cunningham, Nikolai and Bazley (2000), businesses make sales on credit for two basic reasons: (1) selling on credit may be more convenient than selling for cash and (2) offering credit will encourage

customers to buy items they might not otherwise purchase. Chandra (2008) and Fafchamps (1998) noted that while business firms would like to sell on cash, the pressure of competition and the force of custom persuade them to sell on credit. It is valuable to customers as it augments their resources-it is particularly appealing to those customers who cannot borrow from other sources or find it very expensive or inconvenience to do so.

Marfo-Yiadom and Agyei (2005) conducted a study to find out the working management practices of SMEs in Cape Coast. The study revealed that 50 percent of the respondents conducted their business on both cash and credit basis. Another 42 percent did business on cash only basis, while the remainder did business on credit only basis. Because of the prominence of credit transactions, it was necessary to find out the relative percentage of turnover that represented credit sales. Out of the respondents who conducted business on credit basis about 60 percent had between 10-30 percent on credit. The rest could not determine the percentage of their credit sales because of poor or no records kept.

Debtor's collection system

Sales are made on credit and recovery of the payments of these sales in the period is called number of day's receivable (NDR). When sales are made on credit, a system has to be put in place to ensure the collection of the debt. According to Filbeck and Kruger (2005), the accomplishments of business greatly depend on the capability of financial managers to use proper debtor collection system. Organization can minimize firm's debt cost and raise the capital for obtainable ventures through reducing the amount of debtors' collection period. If the firm has more account receivables, it directly affects

the profitability. This is because there is a negative relationship between excessive of short-term assets (in terms of accounts receivables) and profitability.

Cash management practices and financial performance

Every business uses cash balances. Cash is used to pay creditors, pay for purchases, and pay wage and salaries to employees. It is also used to acquire non-current assets. Furthermore, it is required to pay interest on loans and taxation. Cash is the most liquid and the most coveted asset of a business. It is the life blood of every enterprise. The success of a business depends to a large extent on how the firm's cash is managed. According to Lasher (2000), bad cash management can make a strong company weak to the point of failure. He stressed that especially among small firms; it is uncommon for companies to be simultaneously profitable and bankrupt. Some cash management practices of small and medium enterprises are keeping of bank accounts, cash collection system, cash disbursement system and cash budgeting.

Business accounts

The proliferation of financial institutions has encouraged a number of entrepreneurs to open account for their businesses. Proximity to the financial institutions was considered very convenient for banking activities. In terms of the type of bank accounts, the most widely used was savings accounts. In a study by Marfo-Yiadom and Agyei (2005), 57 percent of the respondent operated bank account. Of those who operated bank accounts, 27 percent operated savings account, 23 percent operated current account whilst seven percent operated both current and savings accounts. The result showed that the

small and medium entities were beginning to appreciate the importance of having a business account.

Cash collections

As indicated by Ross (2000), cash gathering is a role of financial records receivable; it is the retrieval of money as of a commerce or person by means of which the firm is issued a receipt. offer hypothetical perceptions counselling knowledge on the way a firm can enhance its cash management effectiveness by gathering accounts receivable as quickly as time permits. The clearest method for presenting cash inflows would be to squeeze debtors for prior sum even though the outcome of this strategy can be next to no extension for accelerating instalments when the credit period as of now permitted to account holders is close to the standard for the firm.

Cash disbursements

As per Gitman (2008), cash disbursement is purpose of accounts payable; it incorporates all expenses of cash by the firm aimed a given accounting period. The aim of cash dispensing is to manage expenses and reduce the firm's fee related with making payment. Vanhorne (2001), guards the thought set forward by Ross (2000), which says that the goal of cash dispensing is to holdup imbursement the length of it is lawfully and for all intents and purposes conceivable. In seeking after this goal, the firm ought not to bargain its associations with suppliers as this may withdraw exchange credit. As indicated by McLaney (2006), arranging a diminishment in cash outflows may be made in array to put off or lessen payments. This will be finished by assuming longer acknowledgment from suppliers.

Cash budgeting

Gitman (2008) states that, a cash plan is a report of the firm have arranged inflows and outflows of cash. It is issued by the firm to gauge its short-term obligation with exacting concentration being paid to planning to making arrangements for surplus cash or for cash deficiencies. Kirkman (2006) landed at the same thought by highlighting that as a segment of executing a successful cash management agenda, a cash flow statement called a cash budget might be arranged. Vanhorne (2001) says that, a general cash management instrument establish in firms is a cash budget. Most firms get ready spending plans on the departmental level and roll these individual spending plans into one master budget.

It is easier for the older firms with better track record experience, and better contracts to get access to credit than the younger ones (Baah-Nuakoh, 1994). About 15 percent of the entrepreneurs were using Cash Budget. They prepared the cash budget on monthly and on quarterly basis but only a few or a small number of 33percent prepared it on yearly basis. The reason for this situation of affairs is that there are frequent changes in prices of goods and services that create wide variation between the actual and the budgeted figures when cash budget are prepared for more than six months. About 32 percent indicated that they do not need the cash budget whiles 16 percent said they have no time to prepare the cash budget. About 37 percent could not prepare the cash budget.

Summary of Research Gap

A survey of the literature dealing with SMEs financial performance indicates that there is a significant gap in the knowledge of the working capital management of SMEs particularly in the developing countries.

According to the literature on SMEs financial performance, some studies have been carried out in the area of working capital management variables such as cash conversion cycle, accounts collection period and account payment periods in one study (see Deloof, 2003 Ganesan, 2007; Raheman and Nasr, 2007; Smith and Begermann, 1997; Eljelly, 2004). Few studies, however, have investigated empirically this area of working capital management practices by SMEs in Ghana, for example Marfo-Yiadom and Agyei (2005). However, none has investigated the impact of working capital management practices (such as cash management, account receivables and cash management practices) on financial performances by SMEs in one study.

This study therefore seeks to investigate the effect of all the three working capital management practices (such as cash management, account receivables and cash management practices) on financial performances by SMEs, particularly, in the developing countries such as Ghana. The findings of the study would therefore throw a new light on the issues of SMEs working capital management practices in Ghana and show whether the situation has changed since that study was undertaken.

One motivation for undertaking this study is to fill the knowledge gap in the area of SMEs financial performance in developing countries in general and Ghana in particular by looking at how inventory management practices,

cash management practices, accounts receivables and payables management practices affect financial performance by SMEs in Ghana.

Conceptual Framework of the Study

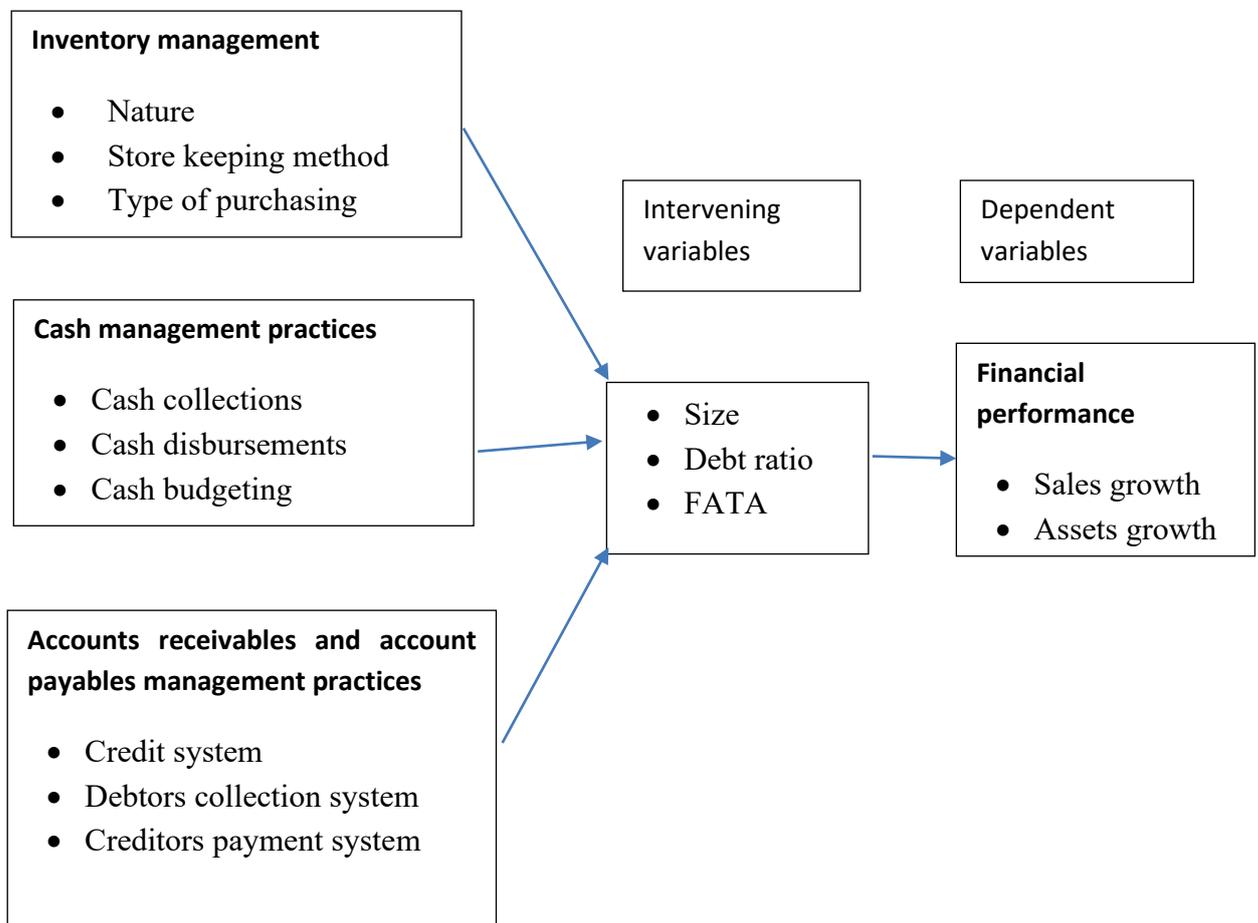
Micro, small and medium enterprises can measure their performance using financial and non-financial measures. Financial performance by SMEs can be measured by using number of criteria such as return on assets [ROA], return on equity [ROE], return on investment [ROI], return on capital employed [ROCE], gross profit to sales [GPS], net profit margin [NPM], earnings before interest, tax, depreciation and amortization [EBITDA], total assets, sales growth, asset growth, and operating income growth. In this study, financial performance is measured using a sales growth and assets growth within the firm.

As depicted in Figure 2, a number of working capital management practices influence financial performance by SMEs. These practices can be grouped into three main components. These are inventory management practices which consist of nature and type of inventory, method of stock taking, type of purchasing adopted and method of storekeeping used; cash management practices which consist of cash collection, cash disbursement and cash budgeting; and account receivables management practices which consist of credit system adopted, debtors' collection period, and creditors payment period.

There are certain external variables other than those working capital management practices that influence SMEs financial performance. These include Size (Natural logarithm of Sales (LOS)), Debt Ratio (DR) and ratio of financial assets to total assets (FATA). These variables also impact on SMEs

financial performance and are therefore intervening variables. It is therefore assumed that the external factors will have impact on SMEs financial performance. Irrespective of the nature of the independent variables, the intervening variables will impact on the SMEs financial performance based on the impact of the intervening variables.

INDEPENDENT VARIABLES



CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter discusses the methods that were employed by the researcher in carrying out the study. Specifically, the research philosophy, research design, target population and study area, sampling procedure, data collection, definition and measurement of variables, reliability and validity, ethical considerations, methods of data analysis and presentation are discussed.

Research Philosophy

Research philosophy can basically be explained as the justification or foundation for following a particular procedure to undertake the research. The two main conventional paradigms are the positivist and constructivist approaches to research. These different views about the way in which knowledge is developed both play an important role in business and management research (Saunders, Lewis & Thornhill, 2009). The philosophical foundation for this study is however based on the positivist paradigm.

This approach is based on the principle of an objective reality where knowledge is only gained from sense data which can usually be directly experienced and confirmed between different observers (O'Brien, 2001). Bryman and Bell (2011) also explains positivism as an epistemological position that promotes the application of the methods of natural sciences to the study of social reality and beyond. The positivist paradigm follows the hypothetico-deductive model which presents social research as an interaction between empirical observation and reason or induction and deduction

(Creswell, 2003). This approach assumes that knowledge is produced deductively from a theory or hypothesis; hence theories are tested by deriving hypothesis from which the theories are either rejected or otherwise.

Research Design

According to Sekaran (2008), research design is the blueprint or detailed outline for the whole research and also is a mapping strategy that is based on sampling technique. The study adopted both qualitative and quantitative approach using explanatory cross-sectional survey design.

Explanatory study establishes causal relationships between variables. Thus, it attempts to clarify how and why there is a relationship between two or more aspects of a situation or phenomenon. According to Saunders, et al (2009), explanatory research is about studying a situation or a problem in order to explain the relationships between variables. Hence explanatory study design was used to determine and explain the relationship between the dependent variable – financial performances and independent variables – inventory management practices, cash management practices and accounts receivables and payables management practices.

Cross-sectional survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Muaz, 2013). This design is used to explain or explore existing status of two or more variables at a given point in time (Gorard, 2013). It is on this basis that cross-sectional survey design was adapted to investigate the effect of working capital management practices on financial performance of small and micro enterprise in Sokoban wood village in Ashanti region.

Burns and Grove (1993) define quantitative research as a formal,

objective, systematic process to describe and test relationships and examine cause and effect interactions among variables. Quantitative research is the systematic empirical investigation of observable phenomena via statistical, mathematical or computational techniques (Given, 2008). Qualitative research is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences, but also in market research and further contexts. Qualitative researchers aim to gather an in-depth understanding of human behavior and the reasons that govern such behavior (Norman & Lincoln, 2005).

Creswell (2003) postulated that relevant and precise information must be combined through the quantitative and qualitative method to come up with well validated and substantiated findings. Both qualitative and quantitative approaches will be employing to collect data and analysis in order to get an in-depth understanding of the phenomenon under investigation and to confirm completeness for instruments

Study Area

The study was purposely conducted in Sokoban Wood Village of Ashanti Region of Ghana. The Ashanti region is located in southern Ghana and is third largest of 10 administrative regions, occupying a total land surface of 24,389 km² (9,417 sq. miles) or 10.2 per cent of the total land area of Ghana (Ghana Statistical Service, 2010). It lies between longitudes 0.15W and 2.25W, and latitudes 5.50N and 7.46N. The region shares boundaries with four of the ten regions; the Western in the south west, Central in the south, Eastern in the east and Brong Ahafo in the north (see Appendix 4).

Sokoban Wood Village is a place where the wood processing is from in the entire Kumasi Metropolitan, is an area squared about 3700, and this area, all kind of wood can be found here and is very nice area, the carpenters here are well train to do all kind of material made by wood with different kinds of wood species and they also have different kinds of machines for their work and most of the machines they used are imported. Again, about 90 percent of the carpenters are ewe and 50 percent of them migrated from Togo to Ghana to work, and because of this most of them have become Ghanaians of which some of them vote when Ghana goes on polls. The area is a new site of which the past government did for them but at first, they were located at Anloga in Kumasi and the constructions of an interchange at the Timber Gardens and by-pass on the Oforikrom-Asokwa road have to move them to Sokoban. These are some of the wood materials produce there include: office chairs, windows made by wood, doors and etc.

Target Population

The research population for any study is the complete list of all the cases in the population from which the sample would be drawn (Creswell, 2003). Saunders (2000) also defines a population as the set of entirely components. It is the biggest collection to which an investigator needs to simplify the sample result. The population is occasionally referred to as target population. The target population comprised the registered MSMEs in Sokoban Wood Village, using Integrated Business Establishment Survey (IBES) by Ghana Statistical Service database kept by the Ashanti Regional Unit at Kumasi. The unit of analysis for this study was the MSMEs. All the entities drawn from the database had similar characteristics. From the database

of Ghana Statistical Service as of December 2015, the target population for the study was 2,300 MSMEs.

According to the Ghana Statistical Service (2015), the Integrated Business Establishments in Ashanti Region accounted for 19.4 per cent of the total number of establishments in Ghana of which MSMEs constituted 99.6 percent and accounted for 42 percent of employment.

Sample and Sampling Procedure

A sample is a representative subdivision of the population from which generalizations are made about the population. Sampling is simply indicated selecting a portion of the population, in the research area, which will be a representation of the whole population (Saunders, 2000). Polit and Hungler (1993) also described sampling as the use of a subset of the population to represent the whole population. The next section discusses the sample size determination and its criteria for its inclusion, sampling techniques adopted for the study and the sampling selection procedures for the study.

Sample size determination

After defining the target population, the sample size was determined based on the required level of precision of statistical results, accuracy level, time and cost. The study chose a confidence level at 95 percent with error margin of 5 percent. Hence, the study assumed that data collected using a sample size would have a 95 percent chance of being right with a 5 percent chance of being wrong.

A sample size of 115 was selected. This was chosen because Cresswell, (2003) and Sekaran, (2003) suggests that the ideal sample size of 5-20% of a population is considered acceptable for most research purposes as it

provides the ability to generalise for a population. Israel (2009) also suggests that a minimum of 100 elements is needed for each major group or subgroup in the sample and for each minor subgroup, a sample of 20 to 50 elements is necessary to facilitate statistical inference.

Criteria for inclusion in the sample

For this study, selection into the sample was based on some key parameters of interest. First, to be considered for this study, MSMEs must be in the database of the Ghana Statistical Services. Second, the firm must be operating in Sokoban Wood Village of Ashanti Region. Finally, the firm should have not more than 100 employees. Only firms that did meet these criteria were included in the study.

Sampling techniques

This study used multi stage sampling techniques, which comprises stratified and systematic random techniques, to select the respondents. According to Cooper and Shindler (2003) stratified random sampling is a statistical sampling method in which the population is divided into homogeneous subgroups called strata so that each population item belongs to only one stratum. Stratification ensures that the sample is well spread out among the relevant subgroups. It also ensures that the sample will accurately reflect the population on the basis of the criteria used for the stratification (Zikmund, Babin, Carr & Griffin, 2010). The sampling frame was stratified based on size, according to the number of employees; micro enterprises (1-5), small enterprises (6-29) and medium enterprises (30-99). The advantage of stratified sampling is that it adds an extra ingredient to random sampling by ensuring that each stratum within the population is represented. This offers

increased possibility of accuracy and increased precision and reliability of estimates (Singh & Belwal, 2008).

Sampling selection procedures

The study involved a survey of small and medium enterprises' working capital management practices and its effect of financial performances. The sampling frame of the study was made up of all MSMEs in Sokoban Wood Village, Kumasi that were on the data base of Ghana Statistical Service. This included the five groups of Associations of the Village, namely Anloga South Woodworkers Association, Kyirapatre Wood Association, Firewood Sellers Association, Plywood/wood Sellers Association and Upholstery/Furniture Association. The sampling frame was stratified based on size, according to the number of employees; micro enterprises (1-5), small enterprises (6-29) and medium enterprises (30-99).

After the stratification, systematic random sampling method was used to select MSMEs from each stratum to be included in the study. Sample enterprises were selected systematically, using a random start and fixed interval. Within each stratum, the first sample enterprise was identified by the random start. The second sample enterprise corresponded to the random start plus the interval. The remaining sample enterprises were identified by adding successive multiples of the interval to the cumulative sum, until the end of the ordered list was reached, to derive the required number of enterprises for each stratum. The sampled enterprises from each stratum were then pooled to form the sample for the study. In all the total population of the selected MSMEs was 1,438. Out of this number, 59 percent represented the micro-sized entities, 38 percent represented the small-sized entities and 3 percent constituted

medium-sized entities. Table 1 depicts the sample distribution of the population.

Table 1: Distribution of Target Population and Sample Size

Firm size	Population	Multiplier factor	Sample size	Percentage used
Micro	848	0.08	68	59
Small	546	0.08	44	38
Medium	43	0.08	3	3
Total	1,438	0.08	115	100

Source: Ghana Statistical Service (2015)

Data Collection Procedure

This section looked at important issues in data collection such as data collection instrument used and its development, measurement of variables on the instrument, validity and reliability testing of the instrument and data collection administration.

Sources of Data

There are two main sources of data collection. The first is the primary source which are obtained afresh by the researcher and then the secondary sources which are normally data already in existence and is relevance to the issue under study. Regarding the primary sources of data, a field survey was undertaken to obtain information that were relevant to the study. The important focus groups involved in the study were micro, small and medium-sized enterprises associations located within the KumasiSokoban wood village vicinity.

Data Collection Instrument

The method of collecting primary data was a self-administered questionnaire. According to Saunders et al. (2007) questionnaires can provide sufficiently valid descriptive information about an organization and

particularly. Questionnaires can also be used to clarify the various connections between variables and to explain statistically the differences found. An advantage of questionnaire studies, however, is that one can have a greater number of participants in a study than in interview studies.

A structured questionnaire containing closed ended and open-ended questions based on the objectives of the study was employed to elicit information from the respondents. The self-administered questionnaires were answered by some of the respondents (owners of the MSMEs) who could read and write. Some of the self-administered questionnaires was also read out and interpreted to some of the respondents who could not read and write. This method helped to elicit information on the working capital management in the selected MSMEs of Sokoban Wood Village in Kumasi.

Development of Questionnaire Instrument

Questionnaires were employed for the collection of primary data from the selected employees in the chosen SMEs. The questionnaire was composed of five different Sections (A-E). Section A covered the socio-demographic characteristics of business entities and the respondents. Sections B to D consisted of questions relating to the independent variables namely inventory management practices, cash management practices, accounts receivables and payables management practices. Section E concentrated on the dependent variable, financial performances. There were both close and some open-ended questions.

The draft questionnaire was originally constructed by the researcher and was reviewed by the supervisor of this research study. Necessary changes were then made in a subsequent version of the questionnaire.

Validity testing of the instrument

Validity can be described as the extent to which the instrument measures what it purports to measure. According to Healy and Perry (2000), validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. Thus, validity measures how truthful the research results are or the extent to which scores truly reflect the underlying variable of interest. Faux (2010) asserts that an effective and practical approach to pre-testing questionnaire instruments is to ensure that the questionnaire is understood by participants. Also, the benefits of the approach are improved questionnaire reliability and planning which results in better response rates (Faux 2010). The questionnaire was constructed by the researcher from the related literature in working capital management and financial performance. After the design, the questionnaire was given to the supervisor and experts for their comments and suggestions. This was done to ensure refinement and content validity.

To establish if the chosen instrument was clear and unambiguous and to ensure that the proposed study has been well conceptualized (Coughian, Cronin & Ryan, 2007); a pilot study was undertaken before the main study. The pilot test was conducted in Ahwiaa Wood Village, Kwabre East District, in the Ashanti Region of Ghana. This is because the MSMEs in Ahwiaa Wood Village have similar characteristics as those in Sokoban Wood Village. In all, a total of 25 MSMEs representing 10 percent of MSMEs in Kwabre East registered with NBSSI were used. As Jagongo (2009) argues, the pilot test helps to reveal if the questions are clearly phrased and words understood by the respondents; the questions are logically arranged; whether there is the need

to clarify some items; and if the questions are relevant. After the pilot test, certain questions were modified. This was because some respondents complained the questions were not very clear to them.

Reliability testing of the instrument

Reliability refers to the degree to which measures are free from random error and therefore yield consistent results (Zikmund 1997). According to Sekaran (2003) reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of the measure. Thus, the extent to which any measurement procedure produces consistent results over time and an accurate representation of the total population under study is referred to as reliability.

Even though there are different forms of reliability, Mugenda and Mugenda (2003) recommend the use of internal consistency technique as a measure of reliability whereby several items on the questionnaire ought to measure the same general construct by producing similar results. This is because it is not only considered as effective but also saves a lot of time. To test for reliability of the questionnaire items, Cronbach alpha coefficient was used. Cronbach's alpha is a reliability coefficient that indicates how well items in a set are positively correlated to one another (Sekaran, 2003). According to David and Thomas (2006), Cronbach's alpha is used with both dichotomous and continuous data.

Even though Darren and Mallery (2001) cautions that there is no set of interpretation as to what acceptable value for measuring Cronbach's alpha, a coefficient of 0.70 and above is acceptable as adequate to accept the research

instrument as reliable (Lloyd, Streiner & Shannon, 1998; Van Saane, Sluiter, Verbeek & Frings-Dresen, 2003).

When the data was run for reliability, the Cronbach alpha coefficient values ranged from a low of .703 to a high of .834 with an overall Cronbach alpha coefficient value of .855. Thus, with regard to the individual scale items on questionnaire, the Cronbach alpha coefficients obtained for the various scales which was mainly 0.8 is considered as good.

Data Collection Administration

The main data for this study was primary data which was collected through a self-administered questionnaire. The data was collected from owners of MSMEs or their representatives who are in charge of the financial decision of the firm through self-administered questionnaire. The data collection process began with a meeting with the management of the Kumasi office of Ghana Statistical Service and NBSSI to brief the regional manager about the issues relating to the data collection and to seek approval to approach the MSMEs registered with their organization. After the approval, a meeting was held between the researcher and research assistants who were engaged to undertake the data collection. The questionnaire was sent to the research assistants to go through on 28th March 2018. On the 5th of April 2018, a training session was held between the research assistants and the researcher to go through the questionnaire in order to clarify any question that was not clear to them. The data collection process started on 10th April 2018 and ended on 6th May 2018. The questionnaires were distributed to the respondents who are entrepreneurs of MSMEs selected for the study. Where respondents faced

difficulty, the research assistants helped them to complete the question. This facilitated completion of questionnaire and increased the response rate.

Data Management and Analysis

After the completion of the data collection, the data were coded to facilitate the data entry. Once all the data were entered, test run was done in a form of frequencies until the data was ready for analysis.

Both descriptive and inferential statistical techniques were used to analyse the data. Descriptive statistics such as mean, percentages and standard deviation were employed to present the responses obtained from the respondents. Statistical Product and Service Solution (SPSS) (formerly known as Statistical Package for Social Sciences) was employed to further analyse the data. Also, tables and a chart were used for data presentation. Correlation was used to test the strength of the relationship between the variables. Finally, multiple regression was employed to test the hypotheses.

These were considered as the most suitable given its flexibility and considering the nature of the data collected. As Saunders, et al. (2007) maintains, SPSS has an incredible capabilities and flexibilities of analyzing huge data within seconds and generating an unlimited amount of simple and sophisticated statistical results including central tendency; mean standard deviation, correlation and regression analysis on distribution tables, figures and other distributions.

Ethical Consideration

Ethics in research has to do with the responsibility of researchers to be honest and respectful to all individuals who are affected by the research studies or reports of the results of the studies (Gravetter & Forzano, 2006).

Gaining the trust of respondents and their willingness to support the researcher's role is a step in the right direction, but it is the recognition of the relevance of ethical principles that must guide any research (Orb, Eisenhauer & Wynaden, 2001).

Permission was sought from the various micro, small and medium-sized enterprises (MSME's) associations registered with National Board for Small-Scale Industries (NBSSI) and various business owners. Also, consent was also sought from individual respondents who were willing to participate in the study. The respondents were assured that their responses would be handled confidentially and that the results could not be traced back to individual respondents. Their anonymity was assured and any information that would identify any MSMEs in the study such as the names of the firm, names of entrepreneurs and location of the firm was not included in the study. Participation in the research was voluntary and anything that would infringe on the rights of the participants was avoided.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the research findings and test of hypotheses through descriptive statistics and multiple regression. The chapter begins with response rate of the study. General results from the survey data are described in the first section. The next section presents the results of hypotheses testing. The chapter concludes with a summary of the key findings.

Response Rate

A total of 115 completed questionnaires were collected out of the 115 that were distributed, yielding 100 per cent response rate. According to Hart (1987), response rates in business surveys vary from 17 per cent to 60 per cent, with an average of 36 per cent. The response rate of 100 per cent was found to be above the acceptable range for such a survey and was deemed acceptable for making statistical inferences from SMEs in Ashanti region.

Demographic Characteristics of the Sample Entities

The characteristics of the sample entities that are discussed in this section are the forms of business entity, categories of businesses, age of the firms and size of the firms.

Forms of business entity

Figure 1 represents the forms of business entities at Sokoban Wood Village. The respondents in the study were asked to indicate which category their businesses fall under: sole proprietorship, private limited company, registered partnership and public limited company. Out of the 115 firms

studied, 68 percent were sole proprietorships. This was followed by private limited company which was 23 percent and registered partnership which constituted 9 percent.

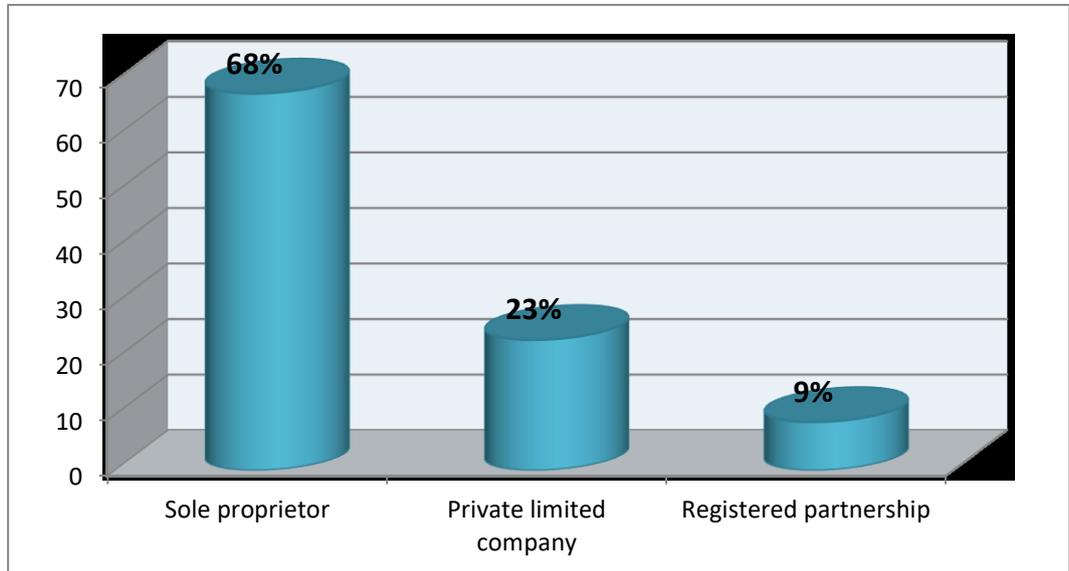


Figure 3 - Respondents forms of business entity
Source: Field Survey, Yeboah (2017)

None of the firms studied were public limited company. It can then be concluded from the study that sole proprietorship is the main form of business entity operated in Sokoban Wood Village. This finding conforms to Mensah (2005) in Ghana who reported that a major characteristic of Ghana's SMEs relates to ownership structure or base which is either sole proprietorships or partnerships.

The predominance of sole proprietorships over other legal forms may be due to the fact that they have fewer legal and tax requirements compared to the other business forms. Thus, sole proprietorship businesses are easier to set up and operate. Furthermore, sole proprietorship gives the owner independence in terms of decision making (Sarapaivanich, 2006).

Categories of businesses

Participants in the survey were asked to state the type of main business they engage in. according to Figure 2, majority of the sample entities engaged in trading which was 41 percent. This was followed by retail, services, wholesale/distribution and manufacturing which constituted 30 percent, 11 percent, 10 percent and 8 percent respectively.

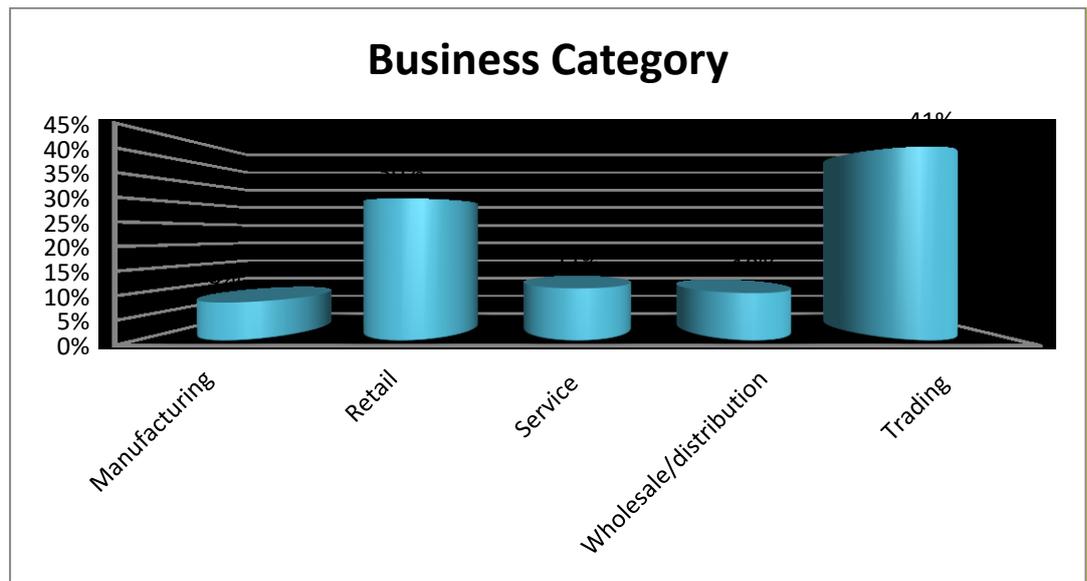


Figure 4: Categories of Businesses

Source: Field Survey, Yeboah (2017)

Age of the firms

The age of the firm was measured according to the number of years the firms have been in existence. The age of SMEs in the study ranged from one year to 10 years and more.

Table 2: Age of the firms

Age	Frequency	Percentage
Less than 1 year	6	5
1-5 years	17	15
6-10 years	33	29
More than 10 years	59	51
Total	115	100

Source: Field survey, Yeboah (2017)

According to Table 2, a little over half of the firms in the study (51%) had operated a business for more than 10 years. The second largest group of firms in terms of age was those which were established 6 to 10 years ago (29%). Around 15 percent of the SMEs in the study have been in existence between 6 to 10 years, indicating that they were more adult in the businesses they engaged in. only 5% of the firms studied were infants, meaning they had been in existence for less than a year.

Size of the firm

The size of the sampled entities was determined according to the number of employees. Four size categories were defined on the basis of number of employees. Firms with less than 5 employees were classified as micro firms. Those with employees between 6 and 30 were classified as small firms and medium-sized firms had between 31 and 99 employees. Firms that employed more than 100 people were regarded as large. In Table 3, the result of the study is presented.

Table 3: Size of the firms

Employees	Frequency	Percentage
1-5	43	37
6-30	61	53
31-99	11	10
Total	115	100

Source: Field survey, Yeboah (2017)

From Table 3, majority of the firms in the study were small-sized enterprises which employed between 6 and 29 people (53%). This was followed by micro enterprises (with employees less than 5 people), which constituted 37 per cent of the respondents. About 10 percent of the respondents studied were medium-sized (with employees between 30 and 99) and none of the firms were large enterprises.

Profile of the Respondents

The study sought to find out profile of the respondents. The information required of the respondents included the position in the entity and their highest level of formal education.

Positions in the Entity

Respondents in the study were asked to state their position in the entity. The position of the respondents sought included manager, assistant manager, owner-manager, owners/shareholders and staff. Data about the various positions of the respondents in the firms is shown in Table 4.

Table 4: Positions in the entity

Employees	Frequency	Percentage
Owner-manager	15	13
Manager	25	22
Finance officer	9	8
Sales person	39	34
Staff	27	23
Total	115	100

Source: Field survey, Yeboah (2017)

Out of 115 respondents, 34 percent reported they were sales person of the enterprise, 23 percent indicated they were staffs whilst those who were managers, owner-managers and finance officers constituted 22 percent, 13 percent and 8 percent respectively. This indicates that majority of the respondents were sales person.

Level of education

Table 5 indicates academic qualification of respondents. The study shows that most employees (48%) have high school or equivalent as their highest academic qualification. 22% have a diploma or equivalent in various fields, 15% of the respondents have master's degree and 10% are bachelor or equivalent in various fields and 5% had primary education.

Table 5: Level of formal education

Qualification	Frequency	Percentage
Primary school or equivalent	6	5
High school or equivalent	55	48
Diploma	25	22
Bachelor degree	12	10
Master degree	17	15
Total	115	100

Source: Field survey, Yeboah (2017)

The finding from table 5 shows that there is a highly educated workforce. This is a prerequisite for effective and efficient performance, especially in the field of working capital management.

Inventory Management Practices

The descriptive and bivariate statistics of responses to questions related to inventory management practices are discussed in this section. Responses required in the section includes types of inventory kept, systems of counting stocks, method of purchasing stocks and inventory records.

Type of inventory kept

Respondents were asked to state the type of inventory kept in their firm. As presented in Table 6, their responses indicated that 40 percent of the sample entities kept finished goods as inventory.

Table 6: Type of inventory kept

Qualification	Frequency	Percentage
Accessories	17	15
Finished Goods	46	40
Work-in-progress	4	3
Component parts	25	22
Raw materials	23	20
Total	115	100

Source: Field survey, Yeboah (2017)

From Table 6, 22 percent of the firms kept component parts as inventory. This was followed by raw materials, accessories and work-in-

progress which constituted 22 percent, 20 percent, 15 percent and 3 percent respectively. This finding confirms the study by Kim et al., (1998), Deloof (2003), and Brealey, Myers & Allen (2006) who contended that inventory is an important component of current assets and inventory comprises raw material, finished goods and work in process.

System for counting stock

Table 7 shows that a very large majority of respondents (95%) employ a system for counting stock. Only six firms studied representing 5 percent indicated they do not employ any particular system for counting stock.

Table 7: System for counting stock

	Frequency	Percentage
Yes	109	95
No	6	5
Total	115	100

Source: Field survey, Yeboah (2017)

This study confirms the study by Vishnani and Shah (2007) and Teruel and Solano (2007) that working capital management entails the control and monitoring of all components of working capital i.e. cash, marketable securities, debtors (receivables) and stocks (inventories) and creditors (payables).

Types of stock taking systems

Organizations have two major systems for counting stocks during the year: perpetual stocktaking and periodic stocktaking systems. These systems depend on the number of times the firms count their stocks during the year. In view of this, the firms in the study were asked to indicate the number of times each firm counts their stock. Firms which count their once or at most two

times a year are said to apply periodic stock taking while those which counts their stocks three or four times a year adopt perpetual stocktaking systems.

According to Table 8, 43 percent of the firms kept their inventory at least four times a year. Those who kept their inventory three times a year were forty-three (representing 37%). The rest were those who kept their inventory once a year (15%) and those who kept their inventory twice a year (5%).

Table 8: Stocktaking systems

Number of times	Frequency	Percentage
Once a year	17	15
Twice a year	6	5
Three times a year	43	37
At least four times a year	49	43
Total	115	100

Source: Field survey, Yeboah (2017)

As Table 8 indicated, 23 firms which constituted 20 percent adopted periodic stock taking during the year while 80 percent of the firms in the study adopt perpetual stock taking system. The finding of this study is inconsistent with the study by Kim et al., (1998), and Osisioma, (1997) who reported that it is not necessary for a firm to hold high level of raw material inventory. The study is however consistent with Brealey, Myers and Allen, (2006) that the firm should have enough inventories to meet the unexpected rise in demand but the cost of holding this inventory should not exceed its benefit.

Stock inventory records

Table 9 presents the system employed by the firms to keep stock records. The study shows that 40 percent of the firms use notebooks. Other records used to keep stocks are tally cards (23%), computer software (22%) and bin cards (15%).

Table 9 : Records for keeping inventory

Record	Frequency	Percentage
Tally cards	27	23
Computer software	25	22
Notebooks	46	40
Bin cards	17	15
Total	115	100

Source: Field survey, Yeboah (2017)

Stock Purchasing Methods

The respondents in the study were also asked to how they purchase stocks. Table 10 shows that over two-thirds of the firms (72%) purchased stocks from a known and regular supplier. The rest of the firms (28%) reported that they purchased stocks from different suppliers.

Table 10: Method of purchasing stock

Method	Frequency	Percentage
A known and regular supplier	83	72
Invite from different suppliers	32	28
Total	115	100

Source: Field survey, Yeboah (2017)

Inventory Management Problems

Inventory management is difficult no matter the scale of operation especially in retailing or merchandising, where varieties of items are dealt with. Table 11 depicts problems that confront the firms in the study.

Table 11: Inventory management problems

Record	Frequency	Percentage
Use of stock by family members	6	5
Pilferages	25	22
Slow moving stocks	61	53
Low inventory	23	20
Total	115	100

Source: Field survey, Yeboah (2017)

The study shows that 53 percent of the firms encounter slow moving stocks. It is common in business especially where no proper forecast of

demand is done for an entrepreneur to have slow moving items and /or obsolete inventory. Other problems mentioned were pilferages (22%), low inventory (20%) and use of stock by family members (5%). The study shows that various businesses face some problems in managing their inventory. The study is inconsistent with the study by Marfo-Yiadom and Agyei (2005) who reported that the major problems firms face in managing their inventory was pilfering, low inventory and use by family members.

Accounts Receivables and Payables Management Practices

This section presents the responses to questions on account receivables and payables management practices. Areas on account receivables and payables management practices that were investigated were how to buy and sell on credits, motivation to buy and sell on credit, debtors collection period and creditors payment period.

Credit purchase and sales

Table 12: Credit purchases and sales

	Frequency	Percentage
Yes	86	75
No	29	25
Total	115	100

Source: Field survey, Yeboah (2017)

When the respondents were asked to indicate whether they buy and sell on credit or not, 86 respondents (75%) indicated that they and buy sell on credit. From Table 12, the remaining 25 percent indicated they did not buy and sell on credit.

Table 13 indicates the proportion of purchases and sales that were made on credit. Fifty seven percent of the respondents purchased and sold between 21-30 percent of their stock on credit basis. Those who purchased and

sold between 11-20 percent of their stock on credit constituted 33 percent whilst 10 percent of the firms purchased and sold 31-40 percent on credit basis. None of the firms studied purchased and sold 1-10 percent and above 40 percent of their goods on credit.

Table 13: Proportion of purchases and sales on credit

	Frequency	Percentage
1-10%	0	0
11-20%	38	33
21-30%	66	57
31-40%	11	10
Above 40%	0	0
Total	115	100

Source: Field survey, Yeboah (2017)

Table 14 shows the reasons why firms sold on credit. The major reason for selling on credit was to increase sales (32%). Other reasons given by the respondents for selling on credit were because of competition (28%), to enhance profitability (22%) and to attract more customers (18%).

Table 14: Reasons for selling on credit

Reasons	Frequency	Percentage
Increase sales	37	32
Competition from others	32	28
Enhance profitability	25	22
Attract more customers	21	18
Total	115	100

Source: Field survey, Yeboah (2017)

Another area that was investigated was why firms purchased on credit. According to Table 15, majority of the firms studied purchased on credit to avoid seeking for external finance (62%). The rest of the reasons were to enhance profitability (23%) and to make use of discount facilities available (15%).

Table 15: Reasons for buying on credit

Reasons	Frequency	Percentage
Avoid seeking for external finance	71	62
Make use of discount facilities available	17	15
Enhance profitability	27	23
Total	115	100

Source: Field survey, Yeboah (2017)

The next issue discussed under credit sales was how long it took firms to collect their money from debtors. From Table 16, majority of the respondents took two weeks to collect money on credit sales (57%). This is followed by firms which collected their money from debtors in one week (16%). Seventeen respondents (15%) indicated that they collected their money from debtors within two months while 12 percent of the respondents took one month to collect credit sales.

Table 16: Debt collection period

Period	Frequency	Percentage
One week	18	16
Two weeks	66	57
One month	14	12
Two months	17	15
Total	115	100

Source: Field survey, Yeboah (2017)

Factors to consider before granting credit

Table 17 shows the factors the business entities considers before granting credit to their customers. Almost one-fifth (19%) each of the respondents considered expected period of receipt and past history of customers as the main factors before granting credit. This was followed by the character of customers and amount involved representing 18 percent each. The others opted for salaried workers and nature of inventory kept which constituted 14 percent and 12 percent respectively.

Table 17: Factors to consider in granting credit

Factors to Consider	Frequency	Percentage
Character of customers	21	18
Amount involved	21	18
Nature of inventory kept	13	12
Expected period of receipt	22	19
Salaried workers	16	14
Past history of customers	22	19
Total	115	100

Source: Field survey, Yeboah (2017)

Cash Management Practices

This section of working management practices present responses to questions on how the firms managed their cash. Important issues investigated were bank accounts of firms, keeping of cash transactions and preparation of cash budget.

Bank account operated

Respondents were asked to indicate whether their firm has its own bank account and the type of account they operated. From the responses, majority of SMEs in the study had their own bank account (67%). However, 33 percent of the firms did not have their own bank account. Those who had bank account indicated they operated savings, current or fixed deposit accounts.

Table 18: Bank Account Operated

Account	Frequency	Percentage
Savings	43	56
Current	29	37
Fixed Deposit	5	7
Total	77	100

Source: Field survey, Yeboah (2017)

As indicated in Table 18, 37 percent of the firms which had their own bank account operated current account. Firms that operated

savings account were 43 representing 56 percent of the firms with their own bank account. Only 7 percent of firms with their own bank account had fixed deposits.

Usage the bank account

Those who reported they operate bank account were asked how often they use the bank account. According to Table 19, majority of firms (47%) used their bank account weekly whilst none of the firms studied used their accounts quarterly.

Table 19: Usage of the bank account

Usage	Frequency	Percentage
Daily	35	46
Weekly	36	47
Monthly	6	7
Quarterly	0	0
Total	77	100

Source: Field survey, Yeboah (2017)

The firms in the study were further asked the reasons why they operated their bank accounts. A little over one-fifth (22%) indicated monitoring the growth of the business and separating business money from personal money as the major reasons they keep their bank account. Other reasons given were to facilitate debt collection (19%), to facilitate payment to suppliers (17%) and to access loans from the financial institutions (13%). Only 7 percent of the firms indicated they operated their bank account for investment in other vehicles.

Table 20: Reasons for operating bank account

Reasons	Frequency	Percentage
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Access loans from financial institutions	22
Separate business money from personal money	22
Monitor the growth of the business	13
Facilitates payment to suppliers	17
Facilitates debt collection	19
Invest in other vehicles	7
Total	100

Source: Field survey, Yeboah (2017)

The finding from the study is consistent with the study by Marfo-Yiadom and Agyei (2005), who reported that majority of SMEs in Central Region of Ghana operate bank account mainly for the purpose of securing loans from those banks they operate with and do not consider investing in other vehicles as a reason to operate bank account. This offers support for the perception that most SMEs are underfinanced and therefore desire to have more capital to facilitate business operation and expansion.

Those who reported that they do not keep bank accounts were asked to indicate how they keep the business money and the reasons they do not keep business bank account. The respondents were permitted to choose more than one option. Table 21 reports how the SMEs kept their money apart from banks.

Table 21- Mode of keeping non-bank money

Mode	Frequency	Percentage in the whole sample
In the personal account	115	100
With susu operators	30	26
At home	81	70
At the work place	62	54

Source: Field survey, Yeboah (2017)

As shown in Table 21, the personal account, the home and the work place were in the top three ranked as mode of keeping non-bank money by the SMEs, as identified by over 50 percent of the respondents. Saving with 'susu'

operators was the least ranked mode by which the SMEs kept their money (representing less than 50% of the whole sample).

Reasons for not operating bank accounts

With regard why, some of the SMEs do not operate bank accounts, the respondents ranked ploughing back into the business, inadequate capital and operation with susu savings as the major reasons for not operating bank accounts, as represented by over 50 percent of the whole sample. The two lowest ranked reasons were because of minimum balance and just started the business.

Table 22: Reasons for not operating bank account

Reasons	Frequency	Percentage in the whole sample
Plough back into the business	87	76
Operate susu savings	69	60
Just started the business	41	36
Inadequate capital	75	65
Because of minimum balance	53	46

Source: Field survey, Yeboah (2017)

Types of cash transaction records

Table 23 reports the types of cash transaction records kept by the SMEs in the study. The study indicated that majority of the SMEs kept cash book (86%), bank statement (76%), and note books (74%) as cash transaction records.

Table 23: Types of cash transaction records

Record	Frequency	Percentage in the whole sample
Pay-in-slip	0	0
Cheque	53	46
Note books	85	74
Payment voucher	48	42
Cash book	99	86
Bank statement	87	76

Source: Field survey, Yeboah (2017)

It is not surprising that the firms ranked cheques (46%), payment voucher (42%) and pay-in-slip (0%) as the top three least cash transaction records because these are rather source documents. This means that the SMEs are now recognizing the importance of keeping accounting records in their businesses. The ability to keep the correct cash transaction records may be due the educated workforce of the respondents, as about 95 percent had at least Senior High education to Master's Degree.

Cash budget preparation

Cash budget is very important as far as management of working capital is concerned. Respondents in the study were asked whether they prepare cash budget for their operation. An overwhelming majority of the respondents reported they do not prepare cash budget (75%) whilst one-fourth of the firms (25%) indicated that they prepare cash budget.

Those who reported they prepare cash budget were asked to state the reasons why they prepare the budget and more than one option was permitted. Table 24 presents the results of the study.

Table 24: Reasons for Preparing Cash Budget

Reasons	Frequency	Percentage in the whole sample
To prevent liquidity problems	99	86
To meet current expenditure	99	86
To have control over finances	97	84
To have enough funds for replacement of fixed assets	83	72
To invest surplus funds	53	46

Source: Field survey, Yeboah (2017)

Of all the respondents, majority (86%) indicated that preventing liquidity problems and meeting current expenditure are the main reasons SMEs prepare cash budget. This was followed by to have control over finances (84%) and to have enough funds for replacement of fixed assets (72%).

The fact that the respondents ranked investing surplus funds as a least reason to prepare cash budget is consistent with the responses to the earlier question (see Table 20) on reasons some firms do not keep bank account that they do not want to invest in other vehicles with their surplus funds. This is a characteristic of most SMEs who would want to plough back their surplus funds into the business (see Table 22) rather than investing in other vehicles.

The last issue discussed under cash budget preparation relate to why some of the SMEs do not prepare cash budget. According to Table 25, majority of the respondents indicated that they do not prepare cash budget because it is not needed now (92%), it is difficult to prepare (86%), and is not related to their business (76%). This finding is consistent with the study by Marfo-Yiadom and Agyei (2005) that majority of SMEs in Central Region did not prepare cash budget because they did not need cash budget for their businesses.

Table 25: Reasons for not Preparing Cash Budget

Reasons	Frequency	Percentage in the whole sample
Have no idea	64	56
Not related to my business	87	76
Cannot prepare	80	70
Not needed now	106	92
Have no time	53	46
Difficult to prepare	99	86

Source: Field survey, Yeboah (2017)

Other reasons cited by the respondents for not preparing cash budget include the fact that they cannot prepare the budget (70%), they have no idea (56%) and have no time (46%).

Financial Performances and Profitability

This section discussed the responses to questions on financial performances and profitability of firms. Issues discussed under financial performance and profitability section are assets and sales growth of the firms.

Growth in assets value

Respondents in the study were asked to indicate the value of their assets at the start-up of their firms. Table 26 indicated that majority of the firms (36%) started their business with assets value GH¢10,001 to GH¢15,000. This was followed by firms which started with business assets of GH¢5,001 to GH¢10,000 (22%).

Table 26: Value of Assets at Start-up

Reasons	Frequency	Percentage
Less than GH¢5,000	23	20
GH¢5,001 – GH¢10,000	25	22
GH¢10,001 – GH¢15,000	42	36
GH¢15,001 – GH¢20,000	23	20
Above GH¢20,000	2	2
Total	115	100

Source: Field survey, Yeboah (2017)

The rest of the firms reported that they started their business with assets values of GH¢15,001 to GH¢20,000 (20%), less than GH¢5,000 (20%).

Only 2 percent of the firms studied started their business with assets values above GH¢20,000.

The firms were further asked to indicate whether their business had grown in relation to total assets since start-up. All the firms indicated that they have experience dramatic growth in assets since start-up (see Table 27).

Table 27: Growth in Assets Value

	Frequency	Percentage
Yes	115	100
No	0	0
Total	115	100

Source: Field survey, Yeboah (2017)

Those firms who reported that they have experience growth in asset value since business start-up were further asked to state the estimated growth in total assets value. Table 28 presents the results.

Table 28: Estimated Growth in Assets Value

Growth	Frequency	Percentage
0-10%	0	0
11-20%	7	6
21-30%	17	15
31-50%	27	23
Above 50%	64	56
Total	115	100

Source: Field survey, Yeboah (2017)

Table 28 indicated that more than half of the firms studied (56%) have experience above 50 percent growth. This was followed by those who have experience 31-50 percent growth (23%), 21-30 growth (15%). Only seven firms (representing 6%) had experience between 11-20 percent growth and no firms experience less than 10 percent growth.

Annual growth in sales

The rates at which firms experience annual growth in sales greatly determine its level of profitability. The firms in the study were therefore asked to indicate whether their businesses had grown in relation to annual sales since start-up. Table 29 indicated that all the firms have experience annual growth in sales since start-up

Table 29: Annual Sales Growth

	Frequency	Percentage
Yes	115	100
No	0	0
Total	115	100

Source: Field survey, Yeboah (2017)

Table 30 indicates the estimated growth in annual sales of the businesses at the Sokoban wood village since start-up.

Table 30: Proportion of Annual Sales Growth

Growth	Frequency	Percentage
0-10%	0	0
11-20%	7	6
21-50%	39	34
Above 50%	69	60
Total	115	100

Source: Field survey, Yeboah (2017)

Out of the 115 respondents, majority representing 60 percent reported their sales have grown above 50 percent. Thirty-nine firms representing 34 percent indicated they have experience annual sales growth between 31-50 percent since start-up; followed those who have experience annual sales growth between 11 and 20 percent (6%).

Inventory Management Practices and Financial Performances

Inventory is a major component of working capital. Because of the significant investment a typical business must make in inventory, the proper

management of this asset can have a significant effect on the profitability of the firm. In this study, some practices that were identified to have effect on firm's financial practices and profitability were the types of inventory kept, method of purchasing stocks, systems of counting stocks and the types of stock taking systems.

In looking at associations between the independent variables which were considered to be inventory management practices and firm financial performance, Pearson product-moment correlation coefficient was used. Preliminary analyses were performed to ensure no violation of the assumptions of normality, and linearity. The study found that there were statistical significant relationships between all the factors of inventory management practices ($p < 0.001$) and firm's financial performance and profitability. This finding shows that a change in any factor of inventory management practices affect financial performances and profitability for the firms. The results can be concluded that as inventory management practices value increases financial performances and profitability also increases in value.

Accounts Receivables and Payables Management Practices and Financial Performances

Even though accounts receivables and payables constitute quite smaller proportion of firms working capital, its proper management has proved to have enormous effect on firm's profitability (Cunningham, Nikolai & Bazley, 2000). Chandra (2008) and Fafchamps (1998) noted that while business firms would like to buy and sell on cash, the pressure of competition and the force of custom persuade them to trade on credit. Some of the accounts receivables and

payables practices that were identified to have effect on firm's financial performance and profitability include credit system, debtor's collection system and creditors payment system.

In looking at associations between factors such as buy and sell on credits, reasons for firm to buy or sell on credit, duration for debtors to pay and factors consider before granting credit, the study found that there were statistical significant correlations between all the factors of accounts receivables and payables management practices ($p < 0.001$) and firm's financial performance and profitability. This finding is consistent with the study by Cunningham, Nikolai and Bazley, (2000) who found positive associations between the credit system and the firm's profitability.

Cash Management Practices and Financial Performances

The success of a business depends to a large extent on how the firm's cash is managed. According to Lasher (2000), bad cash management can make a strong company weak to the point of failure. He stressed that especially among small firms, it is uncommon for companies to be simultaneously profitable and bankrupt. In this study, some of the cash management practices of small and medium-sized enterprises identified from literature to have effect on firm's financial performance and profitability are keeping of bank accounts, (especially in cash collection and cash disbursement) and cash budgeting.

The relationship between the cash management practices and financial performances and profitability was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality and linearity. There was a

positive correlation between business owning bank account ($r = 0.12$, $p < 0.05$), types of cash transaction records ($r = 0.06$, $p < 0.05$) and cash budget preparation ($r = 0.09$, $p < 0.05$) and financial performances and profitability. This implies as these factors value increases then the financial performances and profitability of SME's in Sokoban Wood Village would also increase in value. This finding is inconsistent with the study done by Shin and Soenen (1998) in American companies during the period between 1975 and 1994 which found that strong evidence of a negative relation between profitability and Cash Conversion Cycle.

Testing of Hypothesis

It was hypothesized that working capital management practices have effect of financial performances on profitability of firms. This section presents the results of the testing of the hypothesis. As indicated earlier, multiple regression analysis was used to test the hypothesis formulated in this study.

Testing of hypothesis one

A multiple regression analysis was conducted to predict the effect of inventory management practices on financial performance and profitability for 115 entrepreneurs of SMEs in the Sokoban Wood Village, Ashanti Region of Ghana. Before using the model, a multi collinearity test was conducted to see if the independent variables were correlated. The VIF values and tolerance statistics (see appendix 3) indicate that there was no collinearity as the VIF values were all well below 10 and the tolerance statistics all well above 0.2. Therefore, it could safely be concluded that there was no collinearity within the data.

A test of model summary was performed for R square. This means that independent variables (inventory management practices) account for 73.2 percent of variation in the dependent variables (financial performances and profitability). In other words, inventory management practices account for 73.2 percent change in financial performances and profitability among SME's in Sokoban Wood Village.

Again, a one-way ANOVA analysis was performed to determine whether there was statistically significant difference between the means of inventory management practices. There was a statistically significant difference at the $p < .005$ level in inventory management practices (nature of inventory kept, method of purchasing stocks, types of stock taking, and inventory records) among SMEs in Sokoban Wood Village, Ashanti region of Ghana.

H0₁: There is no statistical significant relationship between inventory management practices and the financial performance and profitability of small and medium-sized enterprise in Sokoban Wood Village, Ashanti region of Ghana.

Hypothesis was formulated to test the relationship between firm's inventory records and financial performance by SMEs in Sokoban Wood Village of Ashanti. The hypothesis for firm's inventory records was not supported, as the p-value ($p=0.000$) in Table 31 revealed that there is relationship between the inventory records of the firm and financial performance of the firm. This value shows that a firm's inventory records has statistical significant effect on financial performance and profitability of firms. The hypothesis for a firm's stock taking system was also not supported, as the

p-value ($p=0.000$) revealed that there is relationship between the firm's stock taking system and financial performance. This value showed that a firm's stock taking system has significant effect on financial performance. The hypothesis for the nature of inventory kept and method of purchasing stocks were not supported, as the p-values ($p=0.000$) of the two variables revealed that there is a relationship between firm's nature of inventory kept and method of purchasing stocks and financial performance. This value shows that a firm's nature of inventory kept and method of purchasing stocks have a significant effect on financial performance.

Table 31: Hypothesis for Effect of Inventory Management Practices on Financial Performance and Profitability of Firms

Inventory Management Practices	Hypothesis	p-values	Decision Regarding Hypothesis
Inventory records	<i>There is no significant relationship between inventory records and financial performance of firms</i>	0.000	Rejected
Stock taking methods	<i>There is no significant relationship between stock taking methods and financial performance of firms</i>	0.000	Rejected
Nature of inventory kept	<i>There is no significant relationship between nature of inventory kept and financial performance of firms</i>	0.000	Rejected
Method of purchasing stocks	<i>There is no significant relationship between method of purchasing stocks and financial performance of firms</i>	0.000	Rejected

Source: Field survey, Yeboah (2017)

It was established from the analysis that all the different inventory management practices had a positive statistical significant effect on financial performances and profitability of SME's in Sokoban wood village at 95 percent confidence level. Moreover, for a one-point increase in each of the four

elements of inventory management practices is predicted to increase the financial performances and profitability of firms in Sokoban wood village by (6.027). In other words, if SME's in Sokoban wood village manage inventory effectively, it will contribute to 60 percent increase in financial performances and profitability.

Testing of hypothesis two

A multiple regression analysis was conducted to predict the financial performance and profitability for 115 entrepreneurs of small and medium-sized entities in the Sokoban Wood village, Ashanti Region of Ghana using account receivables and payables management practices as a predictor. Before using the model, a multicollinearity test was conducted to see if the independent variables were correlated. The VIF values and tolerance statistics (see appendix 3) indicate that there was no collinearity among predictor variables as the VIF values were less than 10 and the tolerance statistics was greater than 0.10. Therefore, it could safely be concluded that there was no collinearity within the data.

A test of model summary was performed for R square. The test means that independent variables (account receivables and payables management practices) account for 68.5 percent of variation in the dependent variables (financial performances and profitability). In other words, account receivables and payables management practices account for 68.5 percent change in financial performances and profitability among SME's in Sokoban wood village.

A one-way ANOVA analysis indicated that there was a statistically significant mean difference at the $p < .005$ level in account receivables and

payables management practices (credit systems, debtors collection systems and creditors payment systems) among SME's in Sokoban wood village, Ashanti region.

H0₂: There is no statistical significant relationship between account receivables and payables practices and the financial performance of small and medium-sized enterprises in Sokoban Wood Village, Ashanti region of Ghana.

Hypothesis was formulated to test the relationship between credit systems and financial performance and profitability by SMEs in Sokoban Wood village of Ashanti region of Ghana. The hypothesis for the credit systems was not supported, as the p-value ($p=0.000$) revealed that there is a relationship between the credit systems and financial performance and profitability. This value showed that the credit systems have significant effect on financial performance and profitability. The hypothesis for the debtors' collection systems was also not supported, as the p-value ($p=0.000$) revealed that there is a relationship between the debtors' collection systems and financial performance and profitability. This value showed that the debtors collection systems have significant effect on financial performance and profitability of firms. The hypothesis for the creditors payment systems was not supported. The p-value ($p=0.000$) revealed that there is a relationship between the creditors payment systems and financial performance and profitability. This value showed that creditors payment systems have significant effect on financial performance and profitability. The results of the hypothesis tested for the second objective of this study are summarized in Table 32.

Table 32: Hypothesis for Effect of Account Receivables and Payables Management Practices on Financial Performance and Profitability of Firms

Account Receivables Management Practices	Hypothesis	p-values	Decision Regarding Hypothesis
Credit systems	<i>There is no significant relationship between credit systems and financial performance of firms</i>	0.000	Rejected
Debtors collection systems	<i>There is no significant relationship between debtor's collection systems and financial performance of firms</i>	0.000	Rejected
Creditors collection systems	<i>There is no significant relationship between creditors payment systems and financial performance of firms</i>	0.000	Rejected

Source: Field survey, Yeboah (2017)

In general, the findings of the study indicated that there is a positive relationship of account receivables and payables management practices indicators and the financial performance and profitability of SMEs of Sokoban Wood village in Ashanti region of Ghana. The results of this study were in line with that of Christopher and Kamalavalli (2009) who investigated a sample of 14 corporate firms in India for the period 96/97 to 2005/06 and found that there is positive association of return on investment (in terms of quick ratio, debtor's turnover ratio, current asset to total asset) and growth rate of firms.

Testing of hypothesis three

The last inferential test conducted was a multiple regression analysis to predict financial performance and profitability for 115 entrepreneurs of small and medium enterprises in the Sokoban Wood village in Ashanti region using cash management practices as the predictor. A multicollinearity test was

conducted for the model. The results showed that there was no collinearity among the predictor variables (see appendix 3) as all the VIF values were less than 10 and the tolerance statistics greater than 0.10.

A test of model summary was performed for R square. The test showed that independent variables (cash management practices) account for 25 percent of variation in the dependent variables (financial performances and profitability). In other words, cash management practices account for 25 percent change in financial performances and profitability among SME's in Sokoban wood village.

A one-way ANOVA was conducted and the test indicated that there was a statistically significant mean difference at the $p < .005$ level of cash management practices (cash collection systems, cash disbursement systems and cash budget preparation) among SME's in Sokoban wood village, Ashanti region.

H0₃: There is no statistical significant relationship between cash management practices (cash collection systems, cash disbursement systems and cash budget preparation) and the financial performances of small and medium-sized enterprises in Sokoban Wood Village, Ashanti region of Ghana.

Hypothesis was formulated to test the relationship between cash collection systems and financial performance and profitability by SMEs in Sokoban Wood village. The hypothesis for cash collection systems was not supported, as the p-value (0.000) revealed that there is relationship between cash collection systems and financial performance and profitability. This value showed that cash collection systems has significant effect on financial

performance and profitability. The hypothesis for cash disbursement systems of the firms was also not supported, as the p-value (0.000) revealed that there is significant relationship between cash disbursement systems of the firms and financial performance and profitability. This value showed that cash disbursement systems of the firms have statistical significant effect on financial performance and profitability.

The hypothesis for preparation of cash budget was not supported, as the p-value (0.000) revealed that there is a relationship between preparation of cash budget and financial performance and profitability. This value showed that preparation of cash budget has statistical significant effect on financial performance and profitability. The results of the hypothesis tested for the second objective of this study are summarized in Table 33.

Table 33: Hypothesis for Effect of Cash Management Practices on Financial Performance and Profitability of Firms

Account	Hypothesis	p-values	Decision
Receivables Management Practices			Regarding Hypothesis
Credit systems	<i>There is no significant relationship between credit systems and financial performance of firms</i>	0.000	Rejected
Table 33: continued	<i>no significant relationship debtor's collection systems and financial performance of firms</i>	0.000	Rejected
Creditors collection systems	<i>There is no significant relationship between creditors payment systems and financial performance of firms</i>	0.000	Rejected

Source: Field survey, Yeboah (2017)

Summary

In this chapter, the descriptive statistics for business characteristics, inventory management practices, accounts receivables and payables management practices, and cash management practices were reported. The hypotheses of the study were tested using multiple regression. The results of the hypotheses tests were summarized on the basis of the objectives of this study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter seeks to present a brief summary on the content of the research work undertaken in this dissertation and outline the major conclusions that were derived from the empirical results. The next section discusses policy implications and suggested areas for future research.

Objectives of the Study and Research Methods

Many authors on working capital management such as Peel & Wilson (1996) found in their research conducted in the U.K that good credit management practices have connection with firm performance and it is very important because it determines the level of working capital available. It is hypothesized that working capital management practices have effect on financial performances on profitability of firms. This necessitated the drive of the study, to investigate the effect of working capital management practices on financial performance of Small and Micro Enterprise in Sokoban wood village in Ashanti region.

The current study investigated the effect of working capital management practices on financial performances of SMEs in Sokoban Wood Village in Kumasi Metropolis of Ghana. The objectives of the study were to:

1. Establish effect of inventory management practice on the financial performance of small and medium-sized enterprise in Ashanti region.
2. Establish effect of receivables and payables management practice on the financial performance of small and medium-sized enterprise in Ashanti region.

3. Determine the effect of cash management practice on the financial performance of small and medium-sized enterprise in Ashanti region.

To achieve the objectives of this study, a quantitative method was adopted for data analysis. The quantitative data was collected from a paper-based questionnaire survey of SMEs filed with the Ghana Statistical Services in Ashanti Region of Ghana. One hundred and fifteen owners of SMEs in Sokoban Wood village were surveyed using the structured questionnaire. The data was analyzed using descriptive statistics such as frequency distribution, percentages, means and standard deviation. Multiple regression was used to test the main hypothesis of this study.

Summary of Findings

In this section, the main findings from the quantitative method undertaken in the current study are summarised in relation to the three-research hypothesis of the study.

Effect of inventory management practices on financial performances of small and medium-sized enterprises in Ghana

Research question one sought to identify the existence of inventory management practices and its effects on the firm financial performances and profitability. The study found that various inventories are kept by different businesses but majority of the SMEs in Sokoban wood village keep finished goods, followed by components parts. Again, it was found that majority of 95 percent of the businesses have a system in place which they use for counting their stock. These stocks according to them are counted for at least four times in a year followed by three times a year and they are kept in notebooks, tally cards and computer software.

When the various businesses were asked how they purchase their stocks, it was found that majority of them purchase their stocks through a known and regular supplier. The major problems the respondent said they encountered in managing their firm inventory were slow moving stocks followed by pilferages.

Since inventory management practice is a major component of working capital this work also went ahead to identification the effect inventory management practice has on the financial performance of small and medium enterprise in Sokoban Wood Village. The independent variables which were considered to be inventory management practices were nature of inventory kept, method of purchasing stocks, types of inventory control records and the types of stock taking systems. The study established that there was a statistical significant relationship between all the factors of inventory management practices and firm's financial performance and profitability. Pearson Correlation Analysis shows that a change in any factor of inventory management practices affect financial performances and profitability for the firms. In other words, as inventory management practices value increases financial performances and profitability also increases in value.

Effect of accounts receivables and payables management practices on firm financial performances in Ghana

The second research question also sought to identify the existence of account receivable and payables management practice and its effect on the financial performance of small and medium-sized enterprises in Ashanti region. This study found that SMEs at Sokoban Wood Village buy and sell on credit and 21-30 percent is the proportion of their stock that is bought and sold

on credit basis. The major reason the SME's in Sokoban Wood Village gave for selling on credit was to increase sales, followed by because of competition, to enhance profitability and to attract more customers (18%). Again, the major reason they gave for purchased on credit was to avoid seeking for external finance such as loans. the study also established that majority of the respondents take two weeks to collect money on credit sales from their debtors.

Interestingly most of the firms considered expected period of receipt and past history of customers as the main factors considered before granting credit followed by the character of customers and amount involved

On the effects of accounts receivables and payables management practices and financial performances, the practices that were identified to have effect on firm's financial performance and profitability include; buy and sell on credits, percentage of working capital constitutes credit purchases or sales, what motivation the firm to buy or sell on credit, duration for debtors to pay and factors consider before granting credit. It was established that there were statistical significant correlations between all the factors of accounts receivables and payables management practices and firm's financial performance and profitability. In other words, as accounts receivables and payables management practices value increases then financial performances and profitability also increases in value.

Effect of cash management practices on firm financial performances in Ghana

The third research question sought to identify the existence of cash management practices and its effect on the financial performance of Small and Micro Enterprise in Ashanti region. It was established that majority of SMEs in the study had their own bank account and they operates savings, current or fixed deposit accounts, these accounts according to them are visited weekly followed by quarterly usage. The study also found that the reasons they operated their bank accounts is as a result of monitoring the growth of the business and separating business money from personal money. Other reasons given were to facilitate debt collection, to facilitate payment to suppliers and to access loans from the financial institutions. Alternatively, the study also found that those who do not keep bank accounts keep their non-bank money in the personal account, home and at work place. Interestingly, only 30 of the firms save with 'susu' operators representing the minority. The reasons for them not operating bank accounts were ploughing back into the business, inadequate capital and operation with susu savings.

On the types of cash transaction records kept by the SMEs, the study found that most of them kept cash book followed by bank statement and note books. Since cash budget is known to be very important as far as management of working capital is concerned it was interesting to found that an overwhelming majority of the respondents reported they do not prepare cash budget, the reasons they gave was simply because it is not needed now and it is difficult to prepare as such it is not related to their business.

Instead those who stated that they prepare cash budget said they do so in preventing liquidity problems and meeting current expenditure.

On the relationship between cash management practices and financial performances using Pearson product-moment correlation coefficient, it was found that there was a positive correlation between business owning bank account, types of inventory records, cash budget preparation and financial performances. This implies as these factors value increases then the financial performances and profitability of SME's in Sokoban wood village would also increase in value.

Conclusions

Many factors in working capital management have impacts on company profitability. A proper management of working capital is required because if a company has too little investment in the working capital then it means that company doesn't have sufficient quantity of materials and account receivables which might lead to loss in production and consequently sales will decrease, furthermore in case of a high demand in the market it will be difficult for the company to react immediately and fulfill the demand. On the other hand, if the investment in working capital is too big then a company has to bear the cost of storage of inventory, handling cost and opportunity cost. All these factors were found to have significant impact on working capital management and hence company profitability. It is therefore imperative for companies to control the identified factors of working capital to maximize profitability.

In identifying existing working capital management strategies in selected firms operating in the study area. As a prelude, the study sought to

know whether in the estimation of the respondents, management of working capital has any significance on company profitability. The study shows that a significant majority of companies estimate highly the significance of working capital management on company profitability. Eighty-nine percent of the study sample attested to this finding whilst a small but significant 11 percent disagreed. Having ascertained the significance of working capital management in influencing company profitability, the study sought to find out if the companies included in the study sample employ any particular strategies in the management of their working capital to enhance profitability.

Recommendations and Policy Implications

The findings of this study have implications not only SMEs and their accountants, but also national standard setters and regulators. Based on the findings of the study, the following recommendations are made.

To boost performance and ensure profitability, companies have to make a strenuous effort to shorten the time between the sale and the receipt of payment. On the other hand, large time span between the sale and receipt of account receivables requires higher investment in current assets which is considered as an idle resource and have its own opportunity cost. Furthermore, cash generated by the sale is used to pay the operating expenses of the company. So, in this situation if the credit period offers by the company to its customers are larger than the credit period offered by its creditors then there will be a financial distress which might lead to bankruptcy. By shortening the cash conversion cycle, companies are sure to eliminate one factor of low profitability and in the process, have boosted their profitability.

In achieving higher returns of assets, companies reduce the risk of low profitability and increase the chance of high growth and profitability. It is therefore recommended that companies do their utmost best to achieve high returns on its assets so as to increase its profitability.

Shortening the receivable collection period improves profitability of a firm because the longer the receivable collection period the greater the need for expensive external financing. Therefore, by reducing the time that cash are tied up in working capital, a firm can operate more efficiently and profitably. Companies should therefore make it a priority to achieve shorter receivable collection periods all the time. By doing this, companies increase their profitability ratios.

Findings from this study and that of other researchers have showed that lower returns on equity is a major contributing factor to low profitability. Companies are therefore urged to maximize returns on equity to achieve higher profitability.

Many researchers found correlations between low returns on sales and low company profitability. The findings of this study are no different. It is therefore recommended that companies make strides to maximize returns on their sales. It is recommended that sales and marketing departments be urged to innovate and find more effective ways of increase company sales ratios.

Suggestions for Future Research

Firstly, further research could determine if the findings of this research are consistent across different sectors. Since the study concentrated on SMEs in the wood sector only, a further research into other sectors will throw more light on the findings of this study.

In addition, there is the need to duplicate the research in other parts of Ghana to confirm if the results of this research can be generalized across the whole country. This study can also be carried out in other parts of Africa for comparative purposes.

Again, the variables used in the study were not exhaustive. Future research could incorporate other variables that affect the identified factors of working capital management and how those sub factors could be controlled.

Finally, more research is needed to determine the potential effects of low profitability on companies and employees. Knowing the effects of low profitability can be helpful in developing prevention tactics.

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APPENDICES A

QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING

LETTER OF TRANSMITTAL

Dear Sir/Madam,

I am an MBA student at University of Cape Coast. Currently, I am conducting a research to investigate the EFFECT OF WORKING CAPITAL MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCES OF SMALL AND MEDIUM ENTITIES IN SOKOBAN WOOD VILLAGE, KUMASI, GHANA.

The result of this survey will form a basis for formulating policies on working capital management practices by SMEs which has been a major problem confronting micro, small and medium enterprises in Ghana.

I will be most grateful if you could take time off your busy schedule to answer this questionnaire. You are assured that any information provided will be treated as confidential and will be used for academic purpose only. Thank you for your cooperation and your time.

SECTION A: DEMOGRAPHIC INFORMATION (Please, tick [√] where applicable)

1. Business ownership of your entity

- | | | | |
|------------------------|--------------------------|-------------------------|--------------------------|
| Sole proprietor | <input type="checkbox"/> | Private limited company | <input type="checkbox"/> |
| Registered partnership | <input type="checkbox"/> | Public limited company | <input type="checkbox"/> |

2. Type of main business

- | | | | |
|---------------|--------------------------|------------------------|--------------------------|
| Manufacturing | <input type="checkbox"/> | Retail | <input type="checkbox"/> |
| Service | <input type="checkbox"/> | Wholesale/distribution | <input type="checkbox"/> |
| Trading | <input type="checkbox"/> | Other | <input type="checkbox"/> |

3. Year(s) in business

- | | | | |
|------------------|--------------------------|--------------------|--------------------------|
| Less than 1 year | <input type="checkbox"/> | 6-10 years | <input type="checkbox"/> |
| 1-5 years | <input type="checkbox"/> | More than 10 years | <input type="checkbox"/> |

4. Number of employees (current year)

- | | | | |
|-------------|--------------------------|---------------|--------------------------|
| Less than 5 | <input type="checkbox"/> | 31-100 | <input type="checkbox"/> |
| 6-30 | <input type="checkbox"/> | More than 100 | <input type="checkbox"/> |

5. Your position in the entity

- | | | | |
|-------------------|--------------------------|-----------------|--------------------------|
| Managing Director | <input type="checkbox"/> | Staff | <input type="checkbox"/> |
| Manager | <input type="checkbox"/> | Owner-manager | <input type="checkbox"/> |
| Assistant manager | <input type="checkbox"/> | Finance officer | <input type="checkbox"/> |
| Sales Person | <input type="checkbox"/> | Others | |

6. Your highest level of education

- | | | | |
|---------------------------|--------------------------|------------------------|--------------------------|
| No formal education | <input type="checkbox"/> | Diploma or equivalent | <input type="checkbox"/> |
| Primary education | <input type="checkbox"/> | Bachelor or equivalent | <input type="checkbox"/> |
| High school or equivalent | <input type="checkbox"/> | Master | <input type="checkbox"/> |

13. The inventory management practices adopted by your firm have an effect on your financial performance and profits.

Strongly Disagree [] Disagree [] Uncertain []
Agree Strongly Agree []

**SECTION C: ACCOUNTS RECEIVABLES AND PAYABLES
MANAGEMENT PRACTICES**

14. Do you buy and sell on credit?

Yes [] No []

15. What percentage of your purchases and sales constitutes credit purchases or sales?

1 – 10 % [] 21 – 30% [] Above 40% []
11 – 20 % [] 31-40% []

16. What motivates you to sell on credit? (Tick as many as applicable to you)

Increase sales [] Enhance profitability []
Competition from others [] Attract more customers []
Others, please specify

17. What motivates you to buy on credit? (Tick as many as applicable)

To avoid seeking for external finance []
To make use of discount facilities available []
To enhance profitability []
Others (specify).....

18. On average, how long does it take to collect your money from debtors?

- One week [] Two months []
Two weeks [] Others, specify
One month []

19. On average, how long does it take to pay your creditors when you buy on credit?

- One week [] Two months []
Two weeks [] Others, specify
One month []

20. What factors do you consider before granting credit to your customers? (Tick as many as applicable to you)

- Character of customers [] Amount involved []
Nature of inventory kept [] Expected period of receipt []
Salaried workers [] Past history of customers []
Others, specify

21. The accounts receivables and payables management practices adopted by your firm have an effect on your financial performance and profits.

- Strongly Disagree [] Disagree [] Uncertain []
Agree Strongly Agree []

SECTION D: CASH MANAGEMENT PRACTICES

22. Does the business have its own bank account?

- Yes [] No [] (Continue from Question 20)

23. If the business has its own bank account, what type of account does it operate?

- Savings accounts only Fixed deposit account only
Current account only Others, specify

24. How often do you use the bank account?

- Daily Monthly
Weekly Quarterly
Others, specify

25. What reasons do you have for operating bank accounts? (Tick as many as applicable)

- Access loans from the financial institutions
Separate business money from personal money
Monitor the growth of the business
Facilitates payment to suppliers
Facilitates debt collection
Investment in other vehicles

26. If the business does not have bank, how do you keep the money of the firm? (Tick as many as applicable to you)

- In the personal account At home
With *susu* operator At the work place
Others (specify)

27. What reasons accounts for not operating bank accounts? (Tick as many as applicable to your firm)

- Plough back into the business
Operate *susu* savings
Just started the business

Inadequate capital []

Because of minimum balance []

Other (specify)

28. What types of records does your firm keep on cash transactions?

Pay-in-slip [] Payment voucher []

Cheque [] Cash book []

Note book [] Bank statement []

Others (specify)

29. Does your firm prepare cash budget?

Yes [] No []

30. If yes, why do you prepare the cash budget?

Prevent liquidity problems []

To meet current expenditure []

To have control over finances []

To have enough funds for replacement of fixed assets []

To invest surplus funds []

31. If no, what reasons do you have for not preparing cash budget?

(Tick as many as applicable)

Have no idea [] Not needed now []

Not related to my business [] Have no time []

Cannot prepare [] Difficult to prepare []

Others (specify).....

32. The cash management practices adopted by your firm have an effect on your financial performance and profits.

Strongly Disagree [] Disagree [] Uncertain []

Agree Strongly Agree []

SECTION E: FINANCIAL PERFORMANCES

33. What was the total value of your assets at the start-up or take-over?

Less than GH¢5,000 [] GH¢15,001 to GH¢20,000 []

GH¢5,001 to GH¢10,000 [] Above GH¢20,000 []

GH¢10,001 to GH¢15,000 []

34. Have you experienced a growth in your business in relation to the total assets since start-up or take-over?

Yes [] No []

35. What in your estimation is the growth of the total assets of your firm?

0 – 10% [] 31 – 50% []

11 – 20% [] Above 50% []

21 – 30% []

36. Have you experienced a growth in annual sales since start-up or take-over?

Yes [] No []

37. What is the percentage of the annual sales growth of your firm?

0 – 10% [] 31 – 50% []

11 – 20% [] Above 50% []

APPENDIX 2

MANUFACTURING SECTOR TABLE

Agro Processing	Cassava Processing	Palm Oil/Edible Extraction	Fruit Juice Production	Maize Production	Spices Product
Forest Based Product	Snail Farming	Honey Making	Grass-cutter Rearing	Bee Keeping	Mushroom Rearing
Handicraft	Basketry	Sculpture	Carves Making		
Energy	Production of Solar Panel	Production of Cylinder	Plastic Product	Manufacturing of Bulbs	
Textile and Garment	Tie and Dye	Kente Weaving	Smock Production		
Aqua Culture	Fish Processing				

SOURCE: NBSSI, 2009

APPENDIX 3A

OUTPUT FOR COLLINEARILITY TESTS

Test of Multicollinearity for Inventory Management Practices

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.144	.064		2.242	.026		
Inventory records	.117	.066	.096	1.776	.077	.831	1.130
Stock taking	.110	.093	.063	1.178	.240	.683	1.117
methods	.187	.056	.195	3.327	.001	.792	1.325
Nature of inventory	.035	.052	.036	.684	.494	.962	1.085
Method of purchasing stocks							

Test of Multicollinearity for Account Receivables and Payables Management Practices

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.146	.064		4.719	.000		
Credit systems	.114	.066	.096	2.143	.033	.971	1.030
Debtors collection	.110	.093	.063	4.071	.240	.946	1.057
systems	.177	.056	.195	3.327	.001	.956	1.046
Creditors payments systems							

Test of Multicollinearity for Cash Management Practices

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.145	.064		2.242	.026		
Cash collections	.116	.066	.099	1.776	.077	.885	1.204
Cash payments	.112	.093	.065	1.178	.240	.895	1.464
Cash budgeting	.175	.056	.193	3.327	.001	.755	1.039

APPENDIX 3B
OUTPUT FOR MULTIPLE REGRESSION OF WORKING CAPITAL
MANAGEMENT PRACTICES

Multiple Regression for Inventory Management Practices

Test of Homogeneity of Variances

level of tolerance for corruption

Levene Statistic	df1	df2	Sig.
3.451	3	176	.018

ANOVA

level of tolerance for corruption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	651.681	3	217.227	69.356	.000
Within Groups	551.241	176	3.132		
Total	1202.922	179			

Robust Tests of Equality of Means

Level of tolerance for corruption

	Statistic ^a	df1	df2	Sig.
Welch	58.094	3	61.643	.000

a. Asymptotically F distributed.

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.732	1.00	0

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.967	9	0.774	0.1	0.000
Residual	0	20	0		
Total	6.967	29			

Predictors: (Constant), how firms keep records, how often firms keep stock, system of counting stock and type of inventory kept

Dependent Variable: financial performances and profitability

Multiple Regression Analysis for Accounts Receivable and Payables Management Practices

Test of Homogeneity of Variances

level of tolerance for corruption

Levene Statistic	df1	df2	Sig.
3.451	3	176	.018

ANOVA

level of tolerance for corruption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	651.681	3	217.227	69.356	.000
Within Groups	551.241	176	3.132		
Total	1202.922	179			

Robust Tests of Equality of Means

Level of tolerance for corruption

	Statistic ^a	df1	df2	Sig.
Welch	58.094	3	61.643	.000

a. Asymptotically F distributed.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828	.685	.684	.0

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	111.468	4	111.468	551.782	0.000
Residual	51.312	254	.202		
Total	162.780	255			

Predictors: (Constant), Buy and Sell on Credits, what motivation the firm to buy or sell on credit, duration for debtors to pay and factors consider before granting credit.

Dependent Variable: financial performances and profitability

Multiple Regression for Cash Management Practices**Test of Homogeneity of Variances**

level of tolerance for corruption

Levene Statistic	df1	df2	Sig.
3.451	3	176	.018

ANOVA

level of tolerance for corruption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	651.681	3	217.227	69.356	.000
Within Groups	551.241	176	3.132		
Total	1202.922	179			

Robust Tests of Equality of Means

Level of tolerance for corruption

	Statistic ^a	df1	df2	Sig.
Welch	58.094	3	54.643	.000

a. Asymptotically F distributed.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.500a	0.32	0.26	0.867

ANOVA

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	93.09	5	18.62	25	.000a
	Residual	279.8	372	0.752		
	Total	372.9	377			

Predictors: (Constant), Business owning bank account, firm using the bank account, How the firm keeps its money, Types of records the firms keep on cash transactions and whether firm prepare cash budget .

Dependent Variable: financial performances and profitability

APPENDIX 4

MAP OF GHANA AND ASHANTI REGION

Map of Ghana



Map of Ashanti Region

